APPENDIX A

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-498/92-17
50-499/92-17

Operating Licenses: NPF-76
NPF-80

Licensee: Houston Lighting & Power Company
P.O. Box 1700
Houston, Texas 77251

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

Inspection At: STP, Matagorda County, Texas

Inspection Conducted: May 26-29 and August 28 through September 15, 1992

Inspectors: J. I. Tapia, Senior Resident Inspector, STP,
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Approved: Arthur T. Howell, Chief, Project Section D, Division of Reactor Projects — 1-14-93 Date

Inspection Summary

Areas Inspected: A special inspection was conducted to determine the circumstances surrounding a May 19, 1992, event that resulted from a system engineer's discovery of a Technical Specification Surveillance Requirement that had never been implemented and to assess the implementation effectiveness of licensee's programs and procedures for identifying and correcting conditions adverse to quality. The inspection also reviewed the circumstances of a September 3, 1992, event that resulted from a loss of power to the digital rod position indication system and the subsequent initiation of plant shutdown of Unit 1.

Results:

- Five apparent violations were identified:

  (1) The first apparent violation involved a failure to satisfy a Technical Specification Surveillance Requirement. Failure to perform the required surveillance test of the manual reactor trip circuit shunt trip coils resulted because the surveillance procedure did not independently test the shunt trip feature (Section 1.2).

  (2) The second apparent violation involved the failure of cognizant licensee personnel to immediately inform the Shift Supervisors of a Technical Specification surveillance deficiency, once it was known. This notification was required by the licensee's station problem reporting procedure (Section 1.3).

  (3) The third apparent violation involved a failure to implement adequate corrective action for a problem identified on April 9, 1992, which concerned a perceived adverse impact associated with the initiation of station problem reports (SPRs). This failure contributed to the lack of the initiation of an SPR on May 18-19, 1992 (Section 1.4).

  (4) The fourth apparent violation involved a failure on June 8 and September 3, 1992, to follow procedures for the issuance of guidance pertaining to Technical Specifications (Section 2.3).

  (5) The fifth apparent violation involved a failure to provide complete and accurate information to NRC pursuant to 10 CFR 50.9 (Section 3).

- The lack of procedural guidance for requesting a temporary waiver of compliance was considered a weakness (Section 1.3).

- The lack of time requirements for determining the operability of safety-related systems and components that are in an indeterminate status was considered a weakness (Section 1.3).

- The inspectors identified instances in which events that are required to be reported to NRC pursuant to 10 CFR 50.72 were not reported within the specified time. An additional example was identified by NRC during another inspection and a Notice of Violation was issued (Section 1.4).

Summary of Inspection Findings:

- Apparent Violation 498;499/9217-01 was opened (Section 1.2).
- Apparent Violation 498;499/9217-02 was opened (Section 1.3).
- Apparent Violation 498;499/9217-03 was opened (Section 1.4).

- Apparent Violation 498;499/9217-04 was opened (Section 2.3).
- Apparent Violation 498;499/9217-05 was opened (Section 3).

Attachments:

- Attachment 1 - Persons Contacted and Exit Meetings
- Attachment 2 - Simplified Diagram of Auto/Manual Reactor Trip Circuit

DETAILS

1 PLANT SHUTDOWN INITIATED BECAUSE A TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENT WAS NOT SATISFIED (UNITS 1 AND 2) (93702)

1.1 Overview

On May 19, 1992, at 5:01 and 5:05 p.m., the licensee initiated an orderly shutdown of Units 2 and 1, respectively, pursuant to Technical Specification (TS) 3.0.3, which requires, in part, that, when a Limiting Condition for Operation is not met, except as provided in the associated action requirements, within 1 hour, action shall be initiated to place the unit in a mode in which the TS does not apply. Both units were operating at full power. This action was initiated because the licensee identified that a manual reactor trip system surveillance had not been adequately performed, thus rendering both trains of the reactor trip system inoperable for both units.

Technical Specification 3.3.1, Table 3.3-1, specifies that the minimum number of operable channels of the manual reactor trip function is two. To verify operability of these channels, Table 4.3-1 of TS Surveillance Requirement 4.3.1.1 requires, in part, that the reactor trip breaker shunt trip (ST) feature be tested independently at least once per 18 months while testing the manual reactor trip function. During a review of the applicable surveillance test procedure, a System Engineer discovered that the independent test had not been implemented since initial startup of each unit. Not meeting this surveillance requirement rendered both trains of the reactor trip system inoperable for each unit. At 2:30 p.m., on May 19, 1992, licensee management declared both units to be in TS 3.0.3 but did not inform the Shift Supervisor until approximately 5 p.m., or about 1 1/2 hours beyond the time required by TS 3.0.3 to initiate action to shut down the units. Further, the licensee failed to take this action until prompted by NRC (after NRC was informed by the Plant Manager that the units had been in TS 3.0.3 since 2:30 p.m.) during a conference call that the licensee had initiated to request a temporary waiver of compliance (TWOC) from the applicable TS Surveillance Requirement.

A Notification of Unusual Event (NOUE) was declared in accordance with the licensee's emergency plan at 5:06 p.m. At approximately 5:45 p.m., NRC granted a TWOC from the provisions of TS 4.3.1.1, Table 4.3-1, Functional Unit 1, until a one-time emergency TS amendment could be reviewed by NRC. The shutdown of both units was terminated at approximately 80 percent power, at which time the licensee exited the NOUE. The licensee was subsequently granted a one-time, emergency TS amendment on June 2, 1992, to allow continued operation of both units, without performing the surveillance, until the next planned or unplanned shutdown of each unit.

1.2 Manual Reactor Trip Surveillance

The inspectors conducted a review of the technical aspects of the surveillance test omission. TS Surveillance Requirement 4.3.1.1, Table 4.3-1, Functional

Unit 1, Note 14, requires that a Trip Actuating Device Operational Test (TADOT) of the manual reactor trip actuation undervoltage and ST circuits be performed. Note 14 requires that these circuits be tested independently. Attachment 2 of this report is a diagram that depicts an auto/manual reactor trip circuit. HS1 and HS2 are the designators for the two manual reactor trip handswitches. Each control room has two manual reactor trip handswitches with two outputs on each switch. One output actuates the Train R reactor trip breakers and the other actuates the Train S reactor trip breakers. Operation of either switch deenergizes the undervoltage coils in all the main and bypass trip breakers through the R and S logic trains. At the same time, the shunt trip coils on all breakers are energized in order to trip the breakers.

The portion of the diagram within the dotted line represents the modification which resulted from the Salem Anticipated Transient Without Scram (ATWS) event. This modification was installed in the main breaker ST circuit as required by Generic Letter 83-28, "Required Actions Based on Generic Implications of Salem ATWS Events." Item 4.3 of Generic Letter 83-28 established the requirements for the automatic actuation of a ST attachment for Westinghouse plants. The automatic ST modification was based on the generic design developed by Westinghouse under the sponsorship of the Westinghouse Owners' Group. The generic design was submitted to the NRC on June 14, 1983, and a Safety Evaluation Report was issued on August 10, 1983, endorsing the design. The modification provides for automatic actuation of the reactor trip breaker ST mechanism on a condition which deenergizes the undervoltage coils. The "Block" designation within the dotted line represents the "Block Auto Shunt Trip" switch. This switch is intended to be used during the TADOT voltage measurements to preclude sensing the application of power to the ST coil via the automatic ST feature. This switch must be depressed in order to independently verify the operability of the ST and undervoltage trip circuits for the manual reactor trip function, as required by TS for the main trip breakers. The ST circuit on the bypass breakers can be tested independently by measuring the voltage across the ST coils.

During a biennial review of Surveillance Procedure 1PSP03-RS-0002, Revision 2, "Manual Reactor Trip TADOT," a system engineer determined that the procedure did not independently test the manual ST function because the "Block Auto Shunt Trip" switch was not required to be manipulated during the TADOT. This step is necessary in order to test the set of contacts that directly completes a current path to the ST device, which trips the breaker. As a result, these contacts had not been independently tested by the manual reactor trip TADOT procedure. The system engineer also noted that the surveillance procedure failed to independently verify operability of the ST circuit on the reactor trip bypass breakers because voltage was not measured across the bypass breaker ST coils during the TADOT.

The inspectors reviewed Generic Letter 85-09, "Technical Specifications for Generic Letter 83-28, Item 4.3." Generic Letter 85-09 was issued to all Westinghouse pressurized water reactor licensees and applicants, including South Texas Project (STP), to inform the licensees and applicants that TS changes should be proposed to explicitly require independent testing of the

undervoltage and ST circuits during power operation and independent testing of the control room manual switch contacts during each refueling outage. The inspectors noted that Generic Letter 85-09 provided explicit guidance on independent testing of the ST circuit in that it stated that the "Block Auto Shunt Trip" switch would have to be used to preclude sensing the application of power to the ST coil via the automatic ST feature. Although the licensee's TS reflected this independent testing requirement, the appropriate test methodology was never incorporated into the subject surveillance procedure. Licensee personnel could not explain how the omission occurred.

The failure to satisfy the requirements of TS Surveillance Requirement 4.3.1.1 is an apparent violation (498;499/9217-01). The licensee has initiated actions to revise the TADOT procedures in order to properly perform the TADOT during the next shutdown of each unit.

1.3 Licensee Identification and Correction of Problem

The inspectors reviewed the procedures and programs that the licensee had in place to disposition the problem described in Section 1.2 and conducted interviews with involved personnel. After reviewing and evaluating Interdepartmental Procedure IP-1.45Q, Revision 8, "Station Problem Reporting," the inspectors concluded that the problem reporting process at STP, if followed, appeared adequate to ensure the prompt identification, documentation, reporting, and correction of safety-related problems. The inspectors also reviewed Interdepartmental Procedure IP-1.58Q, Revision 1, "Preparation of Justifications for Continued Operation (JCO)." This procedure interfaced with Interdepartmental Procedure IP-1.45Q in that, when an SPR was submitted to the Shift Supervisor, the Shift Supervisor was responsible for determining whether the deficiency described in the SPR rendered any safety systems inoperable as defined in the TS. The inspectors noted that, if the SPR resulted in an "indeterminate" condition concerning the operability of safety-related systems or components, the Plant Manager was to be contacted and the Shift Supervisor was to indicate on the SPR that a JCO was required. The inspectors determined that plant operation could continue with safety systems in an indeterminate condition for an indefinite period since there was no explicit guidance on when the JCO must be completed. The inspectors considered this lack of procedural guidance to be a weakness. However, the inspectors did not identify any examples in which a TS allowed outage time was exceeded without appropriate action taken while a JCO was being processed.

The JCO procedure addressed the possibility that a TWOC may be appropriate in certain instances. However, there was no reference made to any procedure to follow in requesting a TWOC. The inspectors verified that there was no such procedure in place. The inspectors considered this lack of procedural guidance to be a weakness.

The inspectors discussed with the licensee the JCO procedure and its relationship to the SPR procedure. The licensee stated that they were

developing a new corrective action program that will replace the SPR procedure, and that the two NRC-identified weaknesses already were being addressed.

The inspectors conducted reviews of the SPRs and other documentation related to the shutdown event described in Section 1.1 and interviewed key licensee personnel involved in order to gain an understanding of how the licensee handled the problem and whether the actions taken were in accordance with the licensee's corrective action program. The inspectors identified the following event chronology:

- On May 18, 1992, at approximately 3:30 p.m., a system engineer identified a potential TS surveillance deficiency in Station Procedure 1PSP03-RS-0002, Revision 2, "Manual Reactor Trip TADOT" that, if valid, may render both redundant trains of the manual reactor trip circuits for both units inoperable. Because the System Engineer realized that such a condition may require both units to be shut down he discussed the issue with his supervisor and a nuclear licensing supervisor at approximately 5 p.m. However, since additional review was needed to determine whether the surveillance deficiency was valid, they decided not to work overtime on the potential problem, but agreed to initiate a thorough study of the issue the following day.

- On May 19, 1992, at approximately 8:15 a.m., the Licensing Manager was informed of the potential problem.

- On May 19, 1992, at approximately 8:30 a.m., the Corrective Action Group (CAG) Administrator was informed of the potential problem. The CAG Administrator informed the Plant Manager and the Plant Operations Manager at approximately 9:40 a.m., after the plan-of-the-day meeting. The Plant Operations Manager told the inspectors that he did not understand the shutdown implications of the deficiency at that time and went on to other meetings.

- At 10 a.m., a meeting was held to discuss the technical aspects of the trip circuit and the requirements for TS surveillance testing. The meeting was attended by plant engineering and licensing personnel. By 12 noon, no conclusive determination had been made and individuals were assigned various tasks in order to obtain additional information. They decided to reconvene the meeting at 2 p.m.

- At approximately 12 noon, the Plant Manager was briefed by the Licensing Manager that there was a likely problem regarding operability of the reactor trip circuitry.

- At approximately 12:30 p.m., the NRC Senior Resident Inspector (SRI) was informed of the potential problem and was told that there would be a meeting at 2 p.m. to further discuss the issue.

- At 2 p.m., a meeting was held by plant engineering and licensing personnel. The Plant Manager, the SRI, Institute of Nuclear Power Operations representatives, and Independent Safety Engineering Group personnel were also present. No Plant Operations Department personnel were present. Licensee personnel discussed the TS surveillance requirements as they related to the circuits in question. The applicability of TS 4.0.3, which allows a delay of the applicable TS action requirements for up to 24 hours (for those TS that have allowed outage times that are less than 24 hours), to implement a missed surveillance or obtain a TWOC from NRC, was discussed. The applicability of TS 4.0.3 was dismissed by the licensee because the subject surveillance requirement had never been performed.

- At 2:30 p.m., with no apparent Plant Operations Department involvement since 9:30 a.m., the Plant Manager concluded that the manual reactor trip circuit in question had not been tested, as required by TS, and that both units were not in compliance with TS Surveillance Requirement 4.3.1.1. As a result, the Plant Manager concluded that a shutdown of both units was required by TS 3.0.3. The SRI acknowledged the declaration and departed to inform Region IV management and to discuss a potential licensee request for a TWOC since the circuits could not be tested while the reactors were at power.

- At approximately 2:45 p.m., the Licensing Manager directed the issuance of an SPR.

- At approximately 2:50 p.m., the Plant Manager directed that the SPR (92-0200) be delivered to the Plant Operations Manager with instructions for him to discuss the issue with the Plant Manager before informing both control rooms.

- By 3:30 p.m., the Plant Manager and Licensing Manager had briefed the Group Vice President, and the decision was made by the licensee to pursue a TWOC request.

- At approximately 3:40 p.m., the Plant Operations Manager was given the SPR while he was in route to the SRI's office. This appeared to be the first time a Plant Operations Department representative became involved in the process. The Plant Operations Manager told the inspectors that he still did not recognize the plant shutdown implications of the SPR at that time.

- At approximately 4 p.m., a conference call commenced between the licensee, Region IV personnel, and Office of Nuclear Reactor Regulation (NRR) personnel, to discuss the licensee's request for a TWOC. The licensee was not prepared to answer NRC's questions, nor had the Plant Operations Review Committee (PORC) concurred in the TWOC request as required by NRC guidance that was available to and previously used by the licensee.

- At approximately 4:15 p.m., a second conference call was convened in the SRI's office with licensee management personnel, Region IV personnel, and NRR personnel. During that conversation, when Region IV management questioned the licensee as to the status of the actions required by TS 3.0.3, it became apparent that the Shift Supervisors of both units had not been informed that TS 3.0.3 had been invoked by the Plant Manager at approximately 2:30 p.m. As a result, the required plant shutdowns had not been initiated, nor had an NOUE been declared. The Shift Supervisors of both units were immediately informed by the Unit 1 Operations Manager following the completion of the conference call.

- At 5:01 p.m., Unit 2 commenced a shutdown in accordance with TS 3.0.3.

- At 5:05 p.m., Unit 1 commenced a shutdown in accordance with TS 3.0.3.

- At 5:06 p.m., an NOUE was declared in accordance with the licensee's emergency plan.

- At approximately 5:35 p.m., the PORC meeting concluded with a recommendation that the Plant Manager approve the TWOC request.

- At approximately 5:45 p.m., a TWOC was granted by NRC, and power was levelled at about 80 percent on both units. This TWOC allowed for continued operation of both units until an emergency TS amendment could be reviewed by NRC. The one-time TS amendment was subsequently approved on June 2, 1992.

Interdepartmental Procedure IP-1.45Q, Revision 8, "Station Problem Reporting," Step 6.1.1, requires that any person who discovers a condition that may impact the safe and reliable operation of the plant shall originate an SPR and, if the condition appears to require immediate response, the originator shall report the condition immediately to the Shift Supervisor. Contrary to this requirement, on May 18, 1992, a condition that had the potential to impact the safe and reliable operation of the plant was discovered during the review of Surveillance Procedure 1PSP03-RS-0002, Revision 2, "Manual Reactor Trip TADOT," and an SPR was not originated. In addition, on May 19, 1992, after generating an SPR and knowing that the condition required immediate response, cognizant licensee personnel did not report the condition immediately to the Shift Supervisor. Failure to follow Interdepartmental Procedure IP-1.45Q is an apparent violation (498;499/9217-02).

1.4 Review of SPRs

The inspectors reviewed other completed and in-process SPR records in order to assess the degree of compliance with the established programs and procedures. The inspectors reviewed operability and reportability determinations and evaluated the acceptability and timeliness of corrective actions taken or planned by the licensee.

The inspectors reviewed Procedures IP-1.45Q, IP-1.58Q, and OPGP03-ZA-0088, Revision 1, "Station Procedure for Nonsafety-Related Request for Action Program." Ten SPR packages that had been issued during 1991 and 1992 were reviewed, of which the majority had been completed. Some SPRs reviewed required operability and reportability determinations. Operability determinations of equipment appeared to be accurate and timely and complied with TS and plant procedures. Some of the SPRs reviewed included JCO reports which had been generated as a result of particular operability determinations. The JCOs complied with the licensee's procedure and appeared to be adequate.

Upon completion of the SPR reviews, the inspectors found that the scope of the licensee's corrective actions program appeared to be adequate. The inspectors, however, made the following observations pertaining to the implementation of the SPR program. First, there were approximately 495 SPRs written in 1991, and 214 SPRs written (as of the time of the May 26-29 portion of the inspection) in 1992. The inspectors determined that there were numerous extensions requested, and granted, to complete the SPRs. The inspectors noted that numerous extensions, resulting in delayed corrective actions, could lead to repetitive problems. Second, the inspectors identified that certain events were not reported to NRC in a timely manner. The inspectors identified a few SPRs in which it took the licensee several days to determine whether a system actuation (e.g., an engineered safety feature system actuation) was required to be reported to NRC in accordance with 10 CFR 50.72 and 50.73. On several occasions, reporting of certain actuations to NRC was required, but they were reported late. This issue was previously identified by NRC (refer to NRC Inspection Report 50-498/91-30; 50-499/91-30). An additional example of failing to satisfy the 10 CFR 50.72 time requirements was identified by NRC in August 1992 during the conduct of a routine resident inspection. A Notice of Violation was issued for this occurrence (refer to NRC Inspection Report 50-498/92-26; 50-499/92-26).

The inspectors also reviewed SPR 92-0128, which was issued on April 9, 1992, to investigate the cause of a reactor coolant system excessive cooldown transient. As a result of the investigation, the licensee determined that there was a reluctance on the part of plant personnel to use the station problem reporting process. Several statements by personnel knowledgeable of the transient indicated that, in their opinion, the problem resolution system did not solve problems and that the adverse impact associated with the initiation of an SPR was not conducive to its use. The corrective action planned to address this issue was to reiterate the requirement for personnel to initiate an SPR when events occur or issues arise that need management attention to ensure that the appropriate evaluations are performed. The inspectors considered this corrective action to be inadequate because it did not address the underlying causes of the perceived adverse impact associated with the initiation of an SPR. The inspectors concluded the failure to initiate an SPR in a timely manner for the May 18-19, 1992, event also to have been caused, in part, by a reluctance of some station personnel to initiate an SPR because of a perceived adverse impact. The failure to implement effective corrective actions is considered an apparent violation of the requirements of 10 CFR 50, Appendix B, Criterion XVI (498;499/9217-03).

2 PLANT SHUTDOWN INITIATED BECAUSE OF A LOSS OF DIGITAL ROD POSITION INDICATION (93702)

2.1 Overview

On September 3, 1992, the Digital Rod Position Indication (DRPI) system in Unit 1 was declared inoperable because of a failure of both power supplies. As a result, the action statements of TS 3.1.3.2 could not be met and TS 3.0.3 was entered at 10:49 a.m. Attempts to repair the system within the 1-hour allowance of TS 3.0.3 were unsuccessful and, at 11:49 a.m., an NOUE was declared and operators began taking actions to shut down the reactor. At 1:52 p.m., reactor power reduction was commenced from 86 percent. The unit had been in a power coastdown in preparation for the upcoming refueling outage. While continuing with the reactor shutdown, instrumentation and control personnel were able to identify the source of the problem and initiated the replacement of one of two power supplies. At 2:15 p.m., the power supply replacement was completed, and the DRPI system was returned to operable. Also at this time, the reactor power reduction was terminated after reaching 75 percent. TS 3.0.3 was exited at 2:26 p.m. and, at 3:04 p.m., operators commenced increasing reactor power at 5 percent per hour. The reactor was returned to 85 percent power during the morning of September 4, 1992.

2.2 Licensee Identification and Correction of the Problem

The DRPI system is powered by two power supplies with an auctioneering function to permit power supply transfer in the event of a failure of one power supply. Power supply failure, as sensed by low output voltage, is annunciated to alert control room operators of a power supply problem. During this event, both power supplies failed and there was no indication on the main control board of a power supply failure. Preliminary investigation into the cause of the failure indicated that the backup power supply was in a degraded condition, such that output voltage was sufficient to indicate satisfactory standby operation but, when loaded, was not able to maintain rated voltage. At the end of the inspection, the licensee was continuing to investigate the cause of the failure of both power supplies.

2.3 Licensee Policy for Complying with TS 3.0.3

As a result of the event on May 19, 1992, the Plant Operations Manager issued a memorandum on June 8, 1992, to the Policies and Practices Manual providing guidance to plant operators upon entering TS 3.0.3. This memorandum stated that, "It is the policy of the Plant Operations Department that when we enter a Technical Specification statement requiring the unit to be placed in Mode 3 in the next six hours we will immediately upon entry into that six hour time block:

- Declare an Unusual Event based on a shutdown required by Technical Specifications, and

- Commence an orderly plant shutdown in accordance with OPGP-ZG-0006, 'Plant Shutdown from 100% to Hot Standby' at a rate of approximately 20% per hour.

- The ramp rate may be adjusted with the permission of the Unit Operations Manager."

During this event, control room operators were in the process of implementing this guidance when, at 11:48 a.m., 2 minutes before entry into the 6-hour time block, a facsimile was received in the control room from the Plant Operations Manager. This facsimile was a memorandum, dated September 3, 1992, which was intended to supersede the June 8, 1992, memorandum. It stated, "It is the policy of the Plant Operations Department that when we enter a Technical Specification action statement requiring the unit to be placed in Mode 3 in the next six hours we will upon entry into the six hour time block:

- Up to two hours may be used for emergency repair or troubleshooting at the Shift Supervisor's discretion. In all cases the Shift Supervisor shall allow sufficient time for a controlled and orderly shutdown.

- After the two hours have expired or earlier at the discretion of the Shift Supervisor, declare an Unusual Event based on a shutdown required by Technical Specifications, and

- Commence an orderly plant shutdown in accordance with OPGP-ZG-0006, 'Plant Shutdown from 100% to Hot Standby' at a rate of approximately 20% per hour.

- The ramp rate may be adjusted with the permission of the Unit Operations Manager."

This second memorandum resulted in a certain degree of confusion on the part of some operators because they were being directed to change the method of TS 3.0.3 implementation while they were preparing to implement the June 8, 1992, guidance. There was no basis provided with the memorandum and it appeared to have contradicted the requirements of Procedure OERP01-ZV-IN01, "Emergency Classification," which, according to plant operators, they had been trained to interpret as requiring the declaration of an NOUE after the expiration of the TS allowed outage time for those TS that require a plant shutdown. For this event, the Shift Supervisor declared an NOUE at the end of 1 hour, consistent with past practice.

The inspector conducted interviews of various licensed operators subsequent to the event and determined that there was a general feeling that the change to existing policy during an event was inappropriate. Most operators interviewed also believed that the contents of the memorandum should have been more appropriately handled through a formal TS Interpretation.

The inspector reviewed the licensee's procedures for the control of formal interpretations of TS requirements. Procedure OPGP03-ZO-0018, Revision 4,

"Technical Specification Interpretation Control," is required to be used for those situations which are not clearly or specifically addressed by wording in the TS. The procedure also states that its purpose is to provide a mechanism for approving clarifications and formal interpretations of the TS. In addition, Procedure OPGP03-ZO-0040, Revision 0, "Maintenance of the Operations Policies and Practices Manual," states that memoranda from whatever source that are potentially TS interpretations should be formally routed by the initiating authority through the formal evaluation process for inclusion in Addendum 1 of the TS. Addendum 1 is the document that contains all TS Interpretations. Both the June 8 and the September 3, 1992, memoranda provided guidance which is not clearly or specifically addressed by the wording in TS 3.0.3. As a result, the Plant Operations Manager should have utilized Procedure OPGP03-ZO-0018 instead of issuing memoranda to provide guidance to the control room operators for implementing TS 3.0.3. The failure to follow the procedural requirements of Procedures OPG03-ZO-0018 and OPG03-ZO-0040 is considered an apparent violation (498;499/9217-04).

3 MANAGEMENT MEETING (30702)

As a result of the special inspection on May 26-29, 1992, a meeting was held on August 28, 1992, in the Region IV office to permit the NRC to gain a better understanding of the licensee's actions relative to the May 19, 1992, event. NRC requested that the following issues be addressed:

- Provide a detailed chronology as well as a description of the facts surrounding the period from the initial identification of the potential deficiency by the System Engineer, apparently at 3:30 p.m. on May 18, 1992, until the Shift Supervisors were notified of the condition on May 19, 1992. Given the implications associated with the potentially missed surveillance (i.e., apparent TS violation and potential for plant shutdown), why was this issue not pursued until conclusion during the evening of May 18, 1992.

- Given that the Plant Manager was directly involved in the operability determination and that there apparently was a process in place to ensure that the Shift Supervisors are informed of conditions such as this (i.e., the SPR procedure), why were the Shift Supervisors not informed of this condition until prompting by the NRC?

- Given that STP managers and staff have successfully utilized the TWOC process on several occasions in the past and have at least requested the use of the process more than any other facility in Region IV, why was the process not followed for this particular event? Describe the nature of any deliberations specific to the TWOC process that occurred prior to initiating a conference call with NRC on May 19, 1992.

- Provide a full description of senior management's expectations relative to issues that have the potential for plant shutdown. In addition, describe senior management's understanding of and involvement in the

issue on May 19, 1992. What are the corrective actions taken or planned to prevent recurrence of this and similar events?

- What was the process for making the operability determination and subsequent determination of the applicability of the appropriate TS? Did this process conform to established guidance? What is management's expectation and guidance relative to implementing the requirements of TS 3.0.3?

The licensee presented a chronology of the event and detailed the corrective actions that were taken or planned. Appendix B is a copy of the material that the licensee presented at this meeting. During this meeting, the licensee acknowledged that the SPR procedure had not been properly implemented. The licensee stated that an SPR should have been originated on May 18, 1992, and that the control room operators should have been informed of the problem at the time of discovery. The former plant manager indicated that the licensed control room operators should have been informed of the condition at 2:30 p.m.; however, he stated that his priorities were to make the best safety judgement (i.e., there was adequate safety basis for not shutting down both units because of this condition), to request a TWOC from NRC as soon as possible, and then inform the licensed operators. He stated, that on May 19, 1992, he was convinced that he could comply with the license requirements and still get a TWOC before it was necessary to direct a shutdown of both units. As a result of this meeting, the licensee committed to provide additional information requested by NRC and respond, in writing, to several questions asked by NRC. These included:

- At what time on May 18, 1992, did the individuals stop investigating the possibility that surveillance of the ST circuitry had not been performed? Was overtime a consideration in not continuing to investigate this potential problem on May 18, 1992?

- On May 18, 1992, did the individuals working on the ST surveillance issue recognize the possibility that a plant shutdown might be required if the surveillance had not been performed?

- When and under what circumstances did the Shift Supervisors or any other licensed operator become aware of the ST surveillance testing issue? What did they learn at that time?

- Was Generic Letter 85-09 referenced in the ST surveillance procedure that existed on May 18, 1992? Were the individuals who were reviewing the issue on May 18, 1992, aware of the applicability of Generic Letter 85-09 before the 10 a.m. meeting on May 19, 1992? Provide the specific details of determining the inoperability of the ST circuit as pursued by the Nuclear Licensing and Plant Engineering Departments.

- Was the need to write an SPR (or the fact that one had not been prepared) discussed any time prior to 2:30 p.m. on May 19, 1992, particularly at the 10 a.m. meeting on May 19, 1992?

- Did anyone from the control room (shift supervisor) attempt to contact station management regarding the ST surveillance issue? If so, describe the circumstances and response provided.

- Provide a copy of the procedural guidance that existed on May 19, 1992, regarding the implementation of TS 3.0.3.

- Provide a copy of the licensee investigation of the May 19, 1992, event.

The licensee provided a written response on September 11, 1992 (Appendix C). At the September 15, 1992, exit meeting, NRC noted, in general terms, that there were some inconsistencies between the September 11, 1992, written response and previous verbal responses to NRC questions at the August 28, 1992, management meeting and information obtained by the inspectors during the conduct of the special inspection. The details of these discrepancies are provided in the following paragraphs.

3.1 Decision to Discontinue Investigation on May 18, 1992

During the first portion of the special inspection that was conducted during the period of May 26-29, 1992, the inspectors determined from interviews with licensee personnel, that, since additional reviews were needed to determine whether or not the licensee was complying with the applicable TS Surveillance Requirement, they would not work overtime but pursue the issue the following morning. At the August 28, 1992, management meeting, licensee management personnel stated that the bases for not pursuing the issue on the evening of May 18, 1992, were: (1) the safety significance was low because there was multiple redundancy associated with the reactor trip system; and (2) the individuals involved were not certain of the TS Surveillance Requirement. However, in the supplemental response of September 11, 1992, the licensee indicated that these individuals believed that the subject surveillance procedure satisfied the applicable TS Surveillance Requirement, and the only valid issue of concern was whether the surveillance procedure test methodology was appropriate.

Subsequent to the August 28, 1992, management meeting, discussions with the two System Engineers who were reviewing the potential surveillance deficiency on May 18, 1992, revealed that only one of these individuals believed that the surveillance procedure satisfied the TS Surveillance Requirement, while the System Engineer who identified the surveillance deficiency believed that there was a potential that the TS Surveillance Requirement was not satisfied by the surveillance procedure. 10 CFR 50.9 requires, in part, that information provided to NRC shall be complete and accurate in all material respects. The failure to accurately respond to NRC's request for information relative to the discontinuation of the licensee's review of the shunt trip device surveillance deficiency on May 18, 1992, constitutes an example of an apparent violation of 10 CFR 50.9 (498;499/9217-03).

3.2 Procedural Requirements for Implementing TS 3.0.3

During the August 28, 1992, management meeting, the former Plant Manager stated that there was a procedure that implemented the requirements of TS 3.0.3 that prevented him from directing the licensed operators to not initiate a power reduction immediately after the expiration of 1 hour following the entry into TS 3.0.3. When questioned further by NRC, he stated it would have taken longer than 1 hour to implement the procedure revision process in order to change the guidance to the operators. The former Plant Manager stated that, as a result, the operators would have commenced the shutdowns of both units before a procedure revision could be implemented, thereby making unnecessary the need for a TWOC.

In the September 11, 1992, response, the licensee indicated that the only guidance in effect during the May 19, 1992, event that pertained to TS 3.0.3 was contained in the Plant Operations Department Policies and Practices Manual. Although this policy provided management expectations regarding the voluntary entry into TS 3.0.3 and restated the action requirements, it did not provide specific implementation steps to be taken following entry into TS 3.0.3. Although not specified in the licensee's response, NRC determined that the same guidance (in the form of a TS Interpretation) is also contained in Addendum 1 of the Houston Lighting & Power Company TS. The inspectors concluded that the information provided at the management meeting was inaccurate. The failure to provide accurate information to NRC constituted the second example of an apparent violation of 10 CFR 50.9 (498;499/9217-05).

3.3 Initiation of an SPR

During the August 28, 1992, management meeting, NRC asked whether the initiation of an SPR was discussed at any time on May 19, 1992, prior to 2:30 p.m., particularly at the 10 a.m. meeting which was attended by the Nuclear Licensing Manager. The Nuclear Licensing Manager stated that he did not ask about the initiation of an SPR after he became aware of the issue at approximately 8:15 a.m., on May 19, 1992, and he was not certain whether an SPR was discussed at the 10 a.m. meeting. On the basis of the information provided in the September 11, 1992, response, the status of a draft SPR was discussed at the beginning of the 10 a.m. meeting.

3.4 Additional Supplementary Information

The licensee submitted an additional written response on September 18, 1992, (Appendix D), to provide clarification of the apparent discrepancies that were identified following the September 15, 1992, exit meeting. NRC reviewed this additional information and found that it provided no additional pertinent information relative to the issues discussed in Sections 3.1-3.3.

ATTACHMENT 1

1 PERSONS CONTACTED

1.1 Licensee Personnel

#*C. Ayala, Supervising Engineer, Nuclear Licensing
*J. Blevins, Supervisor, Procedure Control
*C. Bowman, Corrective Action Group (CAG) Administrator
#*M. Chakravorty, Executive Director, Nuclear Safety Review Board
*R. Chewning, Vice President, Nuclear Support
#*R. Dally-Piggott, Engineering Specialist, Nuclear Licensing
*D. Denver, Manager, Nuclear Engineering
*S. Eldridge, Senior Consulting Specialist, Quality Assurance
*R. Garris, Manager, Nuclear Purchasing and Material Management
*J. Gruber, Director, Independent Safety Engineering Group
+ *D. Hall, Group Vice President
#*A. Harrison, Supervising Engineer, Nuclear Licensing
*S. Head, Consulting Engineer, CAG
#*T. Jordan, General Manager, Nuclear Assurance
+#*W. Jump, Manager, Nuclear Licensing
*W. Kinsey, Vice President, Nuclear Generation
#*D. Leazar, Manager, Plant Engineering
+ *J. Ledgerwood, Consulting Engineering Specialist, CAG
*J. Lovell, Director, Nuclear Generation Projects
*M. Ludwig, Administrative Participant Services
*M. McBurnett, Manager, Integrated Planning and Scheduling
*T. Meinicke, Senior Consultant, Planning and Assessment
#*G. Midkiff, Manager, Plant Operations
*M. Pacy, Division Manager, Design Engineering Department
+#*G. Parkey, Plant Manager
*G. Ralston, Manager, Facilities
*K. Richards, Division Manager, Maintenance
#*S. Rosen, Vice President, Nuclear Engineering
*J. Sharpe, Manager, Maintenance
*B. Tedder, Supervisor, Procurement Quality Assurance
*L. Weldon, Manager, Operations Training
+ *M. Wisenburg, Special Assistant to Group Vice President

1.2 Contractor Personnel (Newman and Holtzinger)

#G. Edgar
#J. Newman
+W. Baer

1.3 Owner Representative

+M. Hardt, Director, Nuclear Division, City Public Service Board - San Antonio

1.4 NRC Personnel

+#A. Beach, Director, Division of Reactor Projects (DRP), Region IV
+S. Black, Director, Project Directorate IV-2 (PDIV-2), Office of Nuclear Reactor Regulation (NRR)

+D. Boal, Investigator, Region IV Office of Investigations
+W. Brown, Regional Counsel, Region IV
+S. Collins, Director, Division of Reactor Safety, Region IV
+G. Dick, Senior Project Manager, NRR
#+R. Evans, Resident Inspector, DRP, Region IV
+#J. Gilliland, Public Affairs Officer, Region IV
*G. Guerra, Radiation Specialist Intern, DRP, Region IV
+T. Gwynn, Deputy Director, DRP, Region IV
B. Hayes, Director, Office of Investigations
+#A. Howell, Chief, Project Section D, DRP, Region IV
*R. Kopriva, Senior Resident Inspector, DRP, Region IV
+J. Milhoan, Regional Administrator, Region IV
+J. Montgomery, Deputy Regional Administration, Region IV
+G. Sanborn, Enforcement Officer, Region IV
*W. Smith, Senior Resident Inspector, DRP, Region IV
#*J. Tapia, Senior Resident Inspector, DRP, Region IV

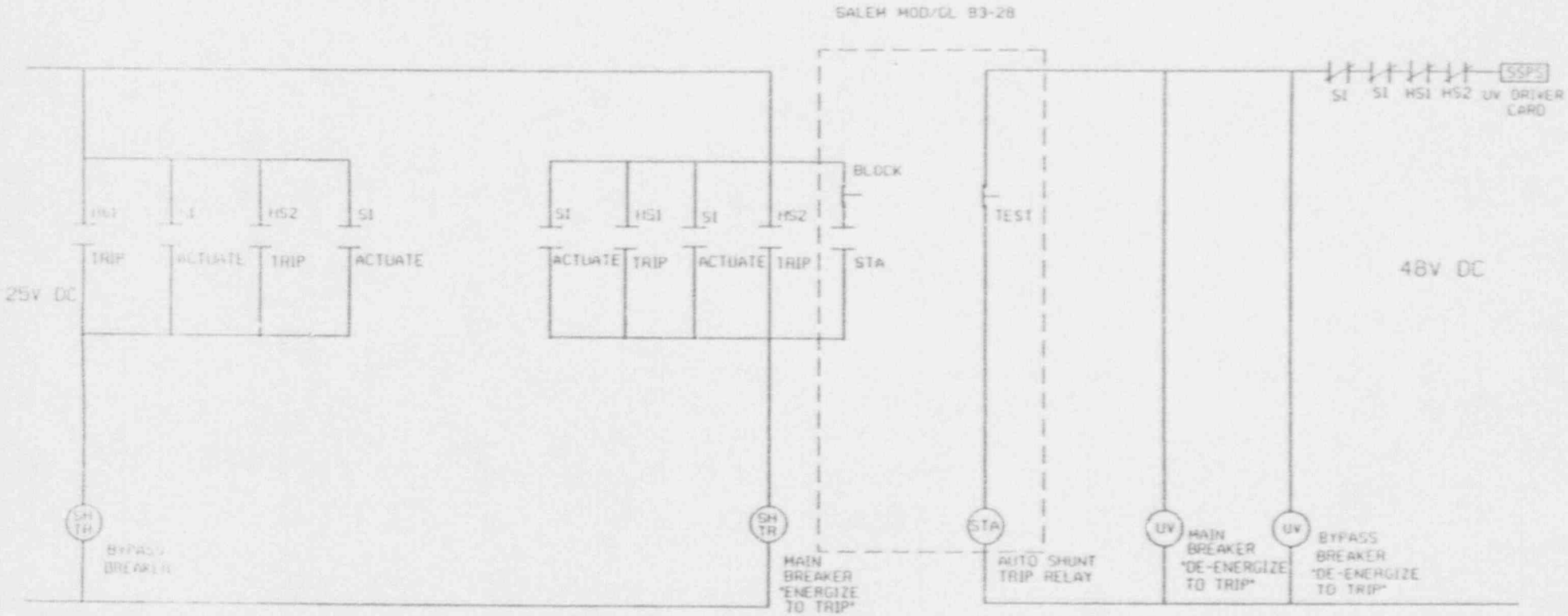
*Denotes personnel that attended the exit meeting on May 19, 1992.
#Denotes personnel that attended the exit meeting on September 15, 1992.
+Denotes personnel that attended the management meeting on August 28, 1992.

In addition to the personnel listed above, the inspectors contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on May 29 and again on September 15, 1992. During these meetings, the inspector reviewed the scope and findings of the report. On January 4, 1993, during a telephone conversation conducted between NRC and the licensee, the licensee was informed of an additional apparent violation that is documented in Section 3 of this report. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspectors.

AUTO/MANUAL REACTOR TRIP CIRCUIT
TYPICAL TRAIN S



UV = UNDERVOLTAGE
STA = SHUNT TRIP RELAY COIL

NOTE:
ALL HS1 CONTACTS OPERATE SIMULTANEOUSLY
ALL HS2 CONTACTS OPERATE SIMULTANEOUSLY
CONTACT "STA" CLOSES WHEN RELAY "STA" DE-ENERGIZES.

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

HL&P - NRC MANAGEMENT MEETING

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

AUGUST 28, 1992

Excellence
Through

SERVICE, TEAMWORK, PRIDE

HL&P - NRC MANAGEMENT MEETING
TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

AUGUST 28, 1992

AGENDA

• Opening Remarks	D. P. Hall
• Event Chronology	W. J. Jump
• Specific Information	M. R. Wisenburg
• Corrective Actions	G. L. Parkey
• Closing Remarks	D. P. Hall

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

EVENT CHRONOLOGY

Monday, May 18	≈1530	• System Engineer discovered possibility that a portion of the shunt trip circuit may not be tested in accordance with Technical Specification requirements - Not sure whether this portion of circuit may have been tested under other procedures - Uncertainty as to precise scope/meaning of Technical Specification
		• Issue discussed with immediate supervisor
	≈1700	• Issue discussed with Nuclear Licensing
		• Review of procedures and drawings not yet complete; Technical Specification requirements still not fully understood; insufficient information to conclude that a problem actually existed
Tuesday, May 19	≈0815	• Licensing Manager informed of potential problem
	0830	• Corrective Action Group (CAG) informed of potential problem
	0940	• CAG informed Plant Manager and Plant Operations Manager of potential problem

EVENT CHRONOLOGY (Continued)

Tuesday, May 19	1000	• Meeting conducted with attendance by Plant Engineering Department, Design Engineering Department, Nuclear Engineering Department, CAG, and Nuclear Licensing
		• Conclusion reached that the contacts should be tested; however, whether testing was required by Technical Specifications was still unknown
	1200	• Meeting adjourned with plans to meet again at 1400
		• Four actions discussed in meeting were to be completed: - Contact Westinghouse concerning bases for Technical Specification - Review relevant WCAP in detail - Review Maintenance records for testing of shunt trip - Review Generic Letter
		• Nuclear Licensing Manager briefed Plant Manager on status, pending actions, and 1400 meeting
	1230	• Nuclear Licensing Manager briefed NRC Senior Resident Inspector on situation

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

EVENT CHRONOLOGY (Continued)

Tuesday, May 19	1400	• Meeting reconvened with additional attendance by: Plant Manager, INPO, Independent Safety Engineering Group (ISEG), and NRC Senior Resident Inspector
		• Plant Operations Department not present at meeting
	1430	• Conclusion reached that shunt trip portion of the reactor trip circuitry had not been tested and that it was required to be tested
		• Licensee determined to be operating outside of its required boundaries, and that Technical Specification 3.0.3 was applicable
		• NRC Senior Resident Inspector informed of this conclusion, and notes that 1430 was the time at which it was determined that Technical Specification 3.0.3 was applicable
	1435	• Senior Resident Inspector left meeting to brief other NRC personnel. HL&P believed his intent was to discuss the 3.0.3 condition and HL&P's consideration of request for Temporary Waiver of Compliance.
	1445	• Meeting concludes with Nuclear Licensing Manager directing the issuance of a Station Problem Report (SPR)

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

EVENT CHRONOLOGY (Continued)

Tuesday, May 19	1450	• Plant Manager directs that SPR be delivered to Plant Operations Manager with instructions to discuss issues with the Plant Manager before informing the Control Rooms
	1500	• Plant Manager and Nuclear Licensing Manager brief Group Vice President on the situation and plan to request Temporary Waiver of Compliance
	1540	• SPR delivered to Plant Operations Manager en route to Senior Resident Inspector's office for conference call with NRR and Region IV
		• Conference call conducted to discuss HL&P plans to request a Temporary Waiver of Compliance
		• Conference call attendees include Plant Manager, Nuclear Licensing Manager, Plant Operations Manager, and Senior Resident Inspector
	≈1600	• Plant Operations Manager concerned about operability of shunt trip contacts
		• Plant Operations Manager contacts Unit 1 Operations Manager

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

EVENT CHRONOLOGY (Continued)

Tuesday, May 19	1605	• Conference call ends for NRC closed discussion. NRC advised Licensee that call would be resumed after the NRC discussion.
		• Licensee attendees retire to Plant Manager's office
	1615	• Second conference call occurs in Senior Resident Inspector's office
		• Unit 1 Operations Manager is present for second conference call
		• Method for requesting Temporary Waiver of Compliance was initially discussed, with conversation later turning to plant shutdown status
	≈1630	• Statements made during conference call lead Plant Operations representatives to conclude that affected circuitry should have been declared inoperable at 1430
	1640	• Plant Operations determines that Technical Specification 3.0.3 was applicable and a shutdown of both units should immediately commence
	≈1650	• Unit 1 Operations Manager contacts Unit 2 Shift Supervisor to inform him of the situation and directs unit shutdown

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

EVENT CHRONOLOGY (Continued)

Tuesday, May 19	≈1655	• Unit 1 Operations Manager contacts Unit 1 Shift Supervisor to inform him of the situation and directs unit shutdown
	1701	• Unit 2 Control Room declares entry into Technical Specification 3.0.3 and commences shutdown
	1705	• Unit 1 Control Room declares entry into Technical Specification 3.0.3 and commences shutdown
		• Plant Operations Review Committee meeting commences
	1706	• Unusual Event declared
	1735	• Plant Operations Review Committee meeting concludes with recommendation that Plant Manager approve Temporary Waiver of Compliance
	1745	• NRC grants Temporary Waiver of Compliance

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

EVENT CHRONOLOGY (Continued)

Tuesday, May 19	1751	• Unit 1 terminates shutdown
	1752	• Unit 2 terminates shutdown
	1753	• Unusual Event terminated

SPECIFIC INFORMATION

- Control Room Notification

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

CORRECTIVE ACTIONS

- Testing of the manual shunt trip will be performed during the next outage where the plant is in MODE 3 or lower for each unit. Testing of the manual shunt trip will be performed periodically during future refueling outages.

- A verbal Temporary Waiver of Compliance was granted by the NRC on May 19, 1992, followed by a written authorization on May 21, 1992. A license amendment to the Technical Specifications was approved by the NRC on June 2, 1992.

- As an immediate action, the surveillance procedures which test the trip function of the reactor trip and bypass breakers were reviewed for similar deficiencies with no adverse findings.

- An indepth review of ESFAS and reactor trip surveillance procedures for one train of one unit is underway to ensure they adequately meet Technical Specification requirements. In each instance where a discrepancy has been noted, an SPR has been promptly provided to the control room. This review will be completed by November 3, 1992.

- Written guidance was developed regarding the implementation of Technical Specification 3.0.3.

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

CORRECTIVE ACTIONS (Continued)

- Instructions dealing with "potential operability" problems and promptly informing the Shift Supervisor have been included in the new Corrective Action Process which becomes effective on September 9, 1992.

- Formal procedures are being developed which address the handling of unresolved problems from an operations standpoint and how operability decisions are made and implemented. These procedures will be developed by September 25, 1992.

- A formal procedure is being developed governing the processes involved with obtaining a Temporary Waiver of Compliance. This procedure will be completed by September 25, 1992.

- The Vice President, Nuclear Generation, discussed the lessons learned from this event with the licensed operators.

- An evaluation of the timeliness of problem identification has been conducted to determine whether issues are normally provided to the control room in a timely manner.

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

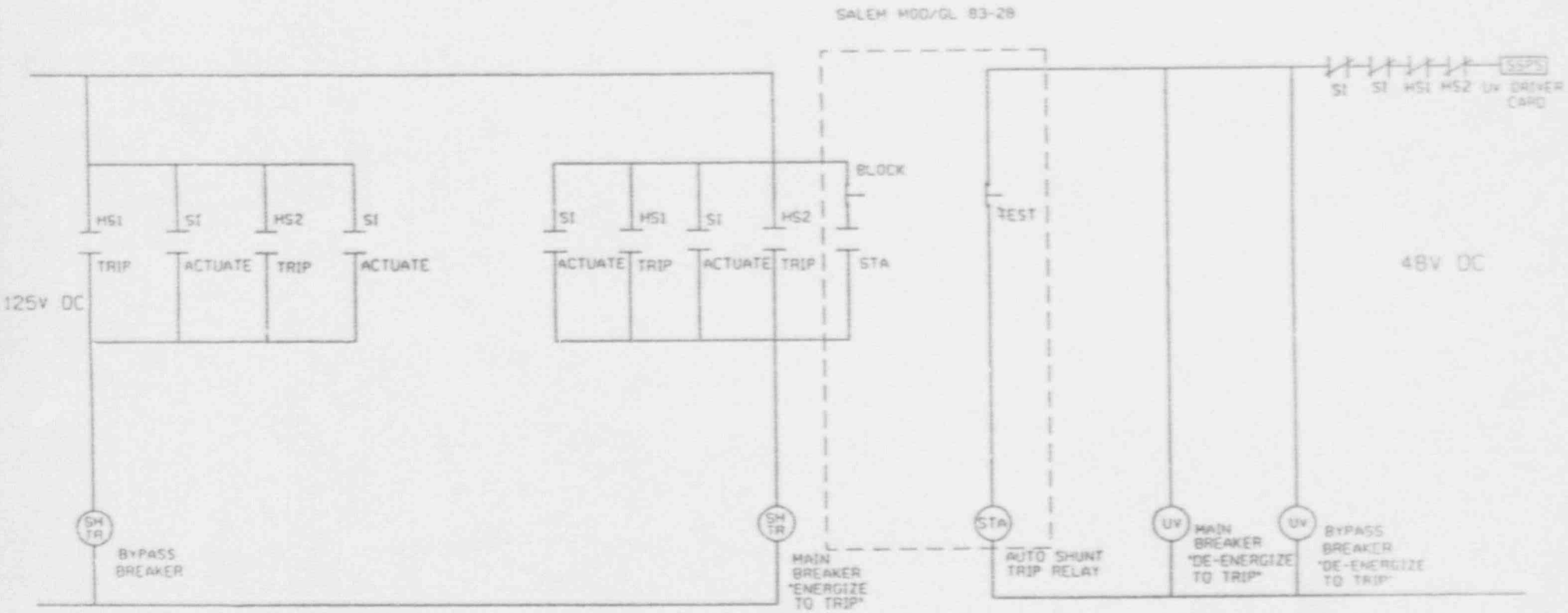
CORRECTIVE ACTIONS (Continued)

- The event was discussed at the regular site management status meeting to emphasize Executive Management's support of the role of the Shift Supervisor in making operability determinations.

- Licensing processes were reviewed to determine the need to provide formal guidance on how to perform other non-routine activities such as the Temporary Waiver of Compliance.

TECHNICAL SPECIFICATION 3.0.3 ENTRY ON MAY 19, 1992

AUTO/MANUAL REACTOR TRIP CIRCUIT
TYPICAL TRAIN S



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ALL MS2 CONTACTS OPERATE SIMULTANEOUSLY
CONTACT "STA" CLOSES WHEN RELAY "STA" DE-ENERGIZES.

THIS SKETCH HAS BEEN VERIFIED TO BE AN ACCURATE REPRESENTATION OF THE ACTUAL CIRCUIT

Gary W Haler 5/20/92

LR256.001