

The Light company

Houston Lighting & Power

South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

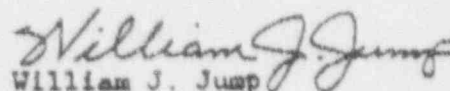
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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project Electric Generating Station
Unit 2
Docket No. STN 50-499
Special Report Regarding
Two Diesel Generator Non-Valid Failures

Pursuant to the South Texas Project Electric Generating Station (STPEGS) Technical Specifications 4.8.1.1.3 and 6.9.2, Houston Lighting & Power submits the attached Special Report regarding Standby Diesel Generators (SDG) #23 and #21 non-valid failures which occurred on December 6 and 7, 1991, respectively.

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.


William J. Jump
Manager,
Nuclear Licensing

MAB/lf

Attachment: Special Report Regarding Two SDG
Non-Valid Failures

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Attachment
ST-HL-AE-3955
Page 1 of 2

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DESCRIPTION OF EVENT:

On December 6, 1991 at 2301 hours, Standby Diesel Generator #23 was started in the emergency mode following release of Equipment Clearance Order 2-91-3261 which was associated with a work document. Unit 2 was in Mode 4 during a refueling outage. SDG #23 came up to rated speed, voltage, and frequency within 10 seconds. When the engine was released from emergency mode, SDG #23 tripped with no test mode trips indicated. The engine was then restarted at 0030 hours on December 7 in the test mode with I&C, Electrical, and Mechanical Maintenance personnel present. The engine came up to rated speed, voltage, and frequency within the 10 second limit and was running satisfactorily. The engine was then started a third time at 0059 hours in the emergency mode. The diesel generator was released from the emergency mode to the test mode without a trip. The Control Room then commenced the Standby Diesel Generator #23 Operability Test. The diesel performed satisfactorily during the one hour surveillance run and SDG #23 was declared operable at 0250 hours.

Standby Diesel Generator #21 was started on December 7, 1991 at 0313 hours in the emergency mode to verify operability in accordance with Technical Specification Action Statement 3.8.1.1 and came up to rated speed, voltage, and frequency within 10 seconds. When the engine was released from the emergency mode, SDG #21 tripped with no test mode trips indicated. SDG #21 was restarted in the emergency mode a second time at 0323 hours, released from the emergency mode to the test mode, and the engine functioned properly. At 0603 hours, the Control Room commenced SDG #21 operability test and declared SDG #21 operable at 0820 hours.

CAUSE OF EVENT:

The causes of these events are not known. Work documents for SDG #23 and #21 have been generated to troubleshoot these events during the next scheduled train outages since the diesel generators were demonstrated operable (via subsequent restarts) immediately after the trips. A previous similar failure indicated problems with loose connections. The control panels have been inspected and no loose connections were discovered. Until these service requests have been implemented and troubleshooting performed, the cause of these events cannot be determined.

Attachment
ST-HL-AE-3955
Page 2 of 2

ANALYSIS OF EVENT:

These two events have been classified as non-valid failures since the diesel generators operated satisfactorily in the emergency mode and if challenged, would have performed their safety function. SDGs #21 and #23 were started in test mode on December 15, 1991 and both engines operated satisfactorily. Diesel generator #21 also successfully completed a valid test on December 19, 1991. SDGs #21 and #23 started and ran in the emergency mode when responding to a recent reactor trip and Safety Injection signal on December 24, 1991. SDG #21 tripped when released from the emergency mode during the run on December 24. Subsequently, a separate report for this apparent non-valid failure will be submitted addressing the cause of the SDG trip. Since these SDGs have operated correctly in the emergency mode, the diesel generators are considered capable of fulfilling their required safety functions.

CORRECTIVE ACTIONS:

1. Work packages have been developed to troubleshoot the SDGs and determine the causes of the trips. The troubleshooting of SDG #21 and #23 during their train outages is scheduled for March 10, 1992 and February 24, 1992, respectively. A supplementary report will be submitted by April 30, 1992, identifying the causes and necessary corrective actions.

ADDITIONAL INFORMATION:

In accordance with Technical Specification Table 4.8-1, there have been no valid failures in the last 20 valid tests and less than 4 valid failures in the last 100 tests for SDG #21. The testing frequency will remain at once per 31 days.

In accordance with Technical Specification Table 4.8-1, there have been no valid failures in the last 20 valid tests and less than 4 valid failures in the last 100 tests for SDG #23. The testing frequency will also remain at once per 31 days.