

March 31, 1988

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-88-24

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region IV staff on this date.

FACILITY:

Houston Lighting & Power Co.  
South Texas, Unit #1  
DN: 50-498

Licensee Emergency Classification:

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

SUBJECT: REACTOR TRIP AND SAFETY INJECTION DUE TO LOSS OF OFFSITE POWER

At 9:13 p.m. on March 30, 1988 with the plant at 8 percent power steaming to the main condenser via the turbine bypass valves, a reactor trip occurred due to a series of main generator lockout and main transformer lockout relays tripping when a test signal was incorrectly inserted into the generator control circuits. This was followed by switchyard breakers opening which removed offsite power to non-vital busses and the "A" train vital bus. This series of events was inadvertently initiated by troubleshooting work being performed on main generator control circuits. Earlier in the day, at about 9:30 a.m. while generating about 100 megawatts electrical to the grid for the first time, the main generator output breaker tripped open. The troubleshooting was to determine and correct the cause. The loss of power to the control rod drive MG sets caused the rods to unlatch, and then the high rate of neutron flux decreasing tripped the reactor. The reactor trip coupled with low decay heat in the new core caused reactor coolant temperature to decrease which in turn initiated safety injection on the low-low T-cold compensated rate. No water was injected because reactor coolant system pressure was maintained. The "A" train emergency diesel started and assumed loads upon loss of power to the "A" train vital bus, and satisfactorily supplied power to the bus for about two hours until offsite power was restored. The "B" and "C" train diesels started satisfactorily upon initiation of the safety injection signal. All other systems appear to have responded normally.

At 9:22 p.m. a NOUE was declared. At 9:38 p.m., the NOUE was terminated. At 9:29 p.m., the state of Texas was informed. At 10:15 p.m. the NRC Headquarters duty officer was informed. The licensee plans to issue a press release today.

The resident inspectors will followup. The licensee expects to be shut down at least 48 hours to complete the evaluation of the event and trouble shoot and repair the original problem.

The licensee plans to issue a press release.

The state of Texas will be informed.

Region IV received notification of this occurrence by telephone from the Headquarters Duty Officer at 10:40 p.m. (CST) on March 30, 1988. Region IV has informed NRR/PA.

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This information has been confirmed with a licensee representative.

CONTACT: G. L. Constable (Ext 151)

DRP &  
LJCallan:cnm  
3/5/88

RA W  
RDMartin  
3/2/988  
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5520: 3/31/88 @ \_\_\_\_\_  
REGIONS & HQ