

OCTOBER 22, 1992

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Publicly Available

## Licensee/Facility:

Houston Lighting & Power Co.  
South Texas 1  
Wadsworth, Texas  
Dockets: 50-498  
PWR/W-4-LP

## Notification:

MR Number: 4-92-0085  
Date: 10/22/92  
SRI Telecon

Subject: INOPERABILITY CAUSED BY EDG FUEL OIL SYSTEM CHECK VALVE FAILURE

Reportable Event Number: N/A

## Discussion:

South Texas Project (STP), Unit 1, is currently in its fourth refueling outage that began on September 19, 1992.

All fuel has been offloaded from the core. A previous morning report (October 13, 1992) described a condition in which Emergency Diesel Generator (EDG) A had been removed from service for its scheduled 18-month inspection, the licensee and EDG vendor were troubleshooting EDG B for suspected governor problems, and a nonessential air system regulator associated with the EDG C air system failed, rendering all EDGs inoperable. All three sources of off-site power were available during this condition.

Further troubleshooting of EDG B revealed that a 3/4-inch fuel line check valve disc separated from its hinge and lodged in the fuel line. During a previous postmaintenance test of EDG B, this condition resulted in restricted fuel flow to the individual cylinder fuel pumps. The plant operators had to perform an emergency stop of the EDG because of the resulting load imbalance between the left and right cylinder banks. On disassembly, the licensee determined that the check valve disc hold-down nut had not been staked to its threaded fastener. This resulted in the disc hold-down nut backing off the threaded fastener, causing the disc to become disconnected from the hinge.

The EDG vendor (Cooper-Bessemer) has recommended that the internals of this 3/4-inch check valve be removed because the valve is required only in applications in which the fuel oil storage tank is located at a level below the EDG. The fuel oil storage tanks at STP are located above the EDGs. The licensee inspected the companion check valve in the fuel system of EDG A and found that the disc hold-down nut also had not been staked. The licensee has removed the EDG A and B 3/4-inch check valve internals. The licensee plans to inspect EDG C and the three Unit 2 EDGs within the next 7 days. Cooper-Bessemer will notify all nuclear utilities that have Cooper-Bessemer EDGs of this condition.

## Regional Action:

The resident inspectors are continuing to review the circumstances related to this event.

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