



**GULF STATES UTILITIES COMPANY**

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775  
AREA CODE 504 635-6094 346-8651

March 27, 1990  
RBG-32573  
File Nos. G9.5, G9.25.1.4

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Gentlemen:

River Bend Station - Unit 1  
Docket No. 50-458

Enclosed is Gulf States Utilities Company's Special Report concerning an invalid failure of the Division III diesel generator at River Bend Station. This report is being submitted pursuant to River Bend Station Technical Specification 4.8.1.1.3 and 6.9.2.

Sincerely,

W. H. Odell  
Manager-River Bend Oversight  
River Bend Nuclear Group

WMO/PDG/RGW/DNL/DCH/TES/pg  
Enclosure

cc: U. S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

NRC Senior Resident Inspector  
Post Office Box 1051  
St. Francisville, LA 70775

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## REPORTED CONDITION

At 1410 on 02/27/90 with the reactor operating at 100 percent power (Operational Condition 1) while performing the regular monthly surveillance test procedure (STP-309-0203), "Division III Diesel Generator Operability Test", Operations personnel halted the STP due to high leakage of fuel oil in the return tubing attached to strainers 1EGF-STR3C and 1EGF-STR3F. This decision was motivated by concern for the potential fire hazard posed by the fuel oil. The shutdown of the diesel generator is classified as a non-valid failure in accordance with Regulatory Guide (RG) 1.108, position C.2.e.2. This Special Report is submitted pursuant to Technical Specification 4.8.1.1.3.

## CAUSE OF FAILURE

Following the start of the diesel generator at 1328, personnel proceeded to check auxiliary systems for leaks. A minor fuel oil leak was noticed in the return tubing. An attempt was made to tighten the tube fitting to reduce the leak rate. However, this resulted in an increase in the leak rate from 1 drop in about 2 seconds to 0.5 pints per minute. Due to this increased leak rate, the STP was stopped and the diesel generator was secured. At no time was the diesel generator affected in maintaining its load, loss of RPM, fuel oil pressure, or alarm condition. Thus, there was no degradation in these or other functions which would indicate that this leak would have prevented the diesel generator performing its design function.

The tubing which leaked was a return line which allowed unused fuel oil to be returned to the fuel oil day tank, 1EGF\*TK2C. This line serves no function for the continued operation of the diesel generator. Under worst case conditions, a leak in this line would result in a slight decrease in fuel oil pressure. However, this would not prevent the diesel generator from performing its safety function.

The diesel generator was halted due to the possibility of fire from the leaking fuel oil. Had this been an "Emergency Function" of the diesel generator, and not a "Test Function", tightening the tubing nut would not have been allowed since it could affect diesel generator operation.

The tubing which leaked does not supply fuel oil necessary to maintain diesel generator operation. Therefore, the failed tubing is not part of the diesel generator boundary. In addition, the tightening of the tubing nut caused the joint to be overstressed, causing a crack to open at the flare in the copper tubing. Since the tubing is not a part of the diesel generator boundary and the increased leak rate was caused by human error (overtightening of the nut), this failure has been classified as a non-valid failure, in accordance with R.G. 1.108, position C.2.e.2.

## CORRECTIVE ACTION

Ferruled tubing connections are unique to the high pressure core spray (HPCS) diesel generator skid. The tubing was replaced using parts from the stored Unit 2 HPCS diesel generator. Following replacement, the STP was satisfactorily performed on 02/28/90.

The flared copper tubing and several other pipe nipples located on the Division III diesel generator have exhibited minor leaks since April, 1989. A maintenance work order has been initiated to repair these other leaks at the next scheduled diesel generator outage.

Length of Time Diesel Generator was Out-of-Service: 15 hours

### Current Surveillance Interval:

Division I Monthly

Division II Monthly

Division III Monthly

### Test Intervals Conforms to Technical Specification:

Yes

#### Failures for Division I:

0 Valid failure(s) in the last 20 Valid Tests

0 Valid failure(s) in the last 100 Valid Tests

#### Failures for Division II\*:

0 Valid failure(s) in the last 20 Valid Tests

4 Valid failure(s) in the last 97 Valid Tests

#### Failures for Division III:

0 Valid failure(s) in the last 20 Valid Tests

2 Valid failure(s) in the last 100 Valid Tests

\* 100 Valid tests have not been completed on this Division.

### Number of Valid Failures in PRevious 100 Valid Tests of all Diesel Generators at River Bend Station:

2