

LETTER OF CONCERN

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 7, 1999

Mr. D. A. Justin, Vice President
Manager of Western Area
Sun Pipe Line Company
907 South Detroit
P. O. Box 2039
Tulsa, Oklahoma 74102

Dear Mr. Justin:

CPF No: 49510C

On July 20-24, 1998, a representative of the Southwest Region, Office of Pipeline Safety, pursuant to Chapter 601 of 49 United States Code conducted an inspection of Mid-Valley Pipe Line facilities in Texas, Arkansas and Louisiana. Sun Pipe Line Company is the operator of this pipeline.

As a result of the inspection and in keeping with pipeline safety regulations, Title 49, Code of Federal Regulations, Parts 195 and 199, we have noted some areas of concern.

1. **Cathodic Protection** - There are several areas where Sun's operational practices in its Corrosion Mitigation Program need improvement. Because a good cathodic protection program is essential to the safe and reliable operation of a pipeline, it is recommended that Sun review its operational practices to eliminate the following deficiencies.

Rectifier Output - It is Sun's operating practice that monthly rectifier output values are measured and recorded by pipeline personnel and not by the Cathodic Protection Technician. This data is then given to the Technical Supervisor who enters it onto a spreadsheet. However, copies of the spreadsheet are not sent to the Cathodic Protection Technician. We also noticed errors in the spreadsheet reports and concluded that the data was not being evaluated. For example, Rectifier 161 was out of service from June to September and the technician was not informed. Since he wasn't aware of the problem, the Annual Cathodic Protection survey was conducted with the rectifier off and it had to be performed a second time.

Additionally, we found that changes in current output were not being evaluated. Changes recorded in the current output data reflect current output differences that are typically associated with changes in tap settings. Records showed that they had not been changed. Apparently, there was no evaluation or follow-up to this operating anomaly. The Cathodic Protection Technician should be more involved in reviewing rectifier output records if this important aspect of the program is to be effective and efficient.

Annual Cathodic Protection Survey - Records do not indicate that Sun is considering the IR drop when performing the annual cathodic protection survey. Although the pipe-to-soil potentials in the data we reviewed were probably sufficiently negative to compensate for this error, we recommend that this uncertainty be eliminated by following industry's best practices as delineated in NACE's RP 169.

As noted earlier, it is important to evaluate the data collected from all the cathodic protection operational functions. Sun's data showed that the pipe-to-soil potentials were more negative from the previous year's survey even though the rectifier output had decreased. This cause and effect is opposite to normal operations. We determined, through interviews with the Cathodic Protection Technician, that these and other errors were 'paper errors'. These errors indicate a lack of attention and improper review of the data.

Cathodic Protection Interference Testing - In 1993 Sun discovered corrosion on the pipeline due to interference that occurred in the vicinity of a crossing with another pipeline at MP 90. As a result of the interference several hundred feet of pipeline had to be replaced.

When we visited this location the levels of protection were measured and found to be below protective levels. Results from subsequent testing by Sun personnel indicated that the bond to the other pipeline was ineffective due to the high, linear, electrical resistance of the foreign line. The cause of the high resistance was attributed to the dresser couplings used to join the pipe. To remedy this situation, Sun reported that it plans to break the bond and to install an impressed current system on their pipeline.

We also observed that Sun has installed bonds to foreign pipeline crossings. However, Sun does not have interference testing records to show that there is no interference at unbonded crossings.

2. **Inspection Records** - Sun maintains good records of inspections they perform but the forms are not always completed properly. Additionally, follow-up to the reported deficiencies is not conducted. For example, unconnected ground cables were reported on the annual tank inspection form in 1996 and 1997 and remained ungrounded at the time of our inspection. We also observed that some of the tank inspection forms had not been signed by neither the inspector nor the supervisor. Improper form completion was also noted on the Main Line Valve Inspection forms -

some boxes were left blank.

It is recommended that care be taken when completing the forms and that a ‘follow-up’ process be implemented when the findings reported on these forms are corrected.

3. **Drawings** - There is no procedure or process being followed to upgrade pipeline or station drawings.

With respect to pipeline drawings, the alignment sheets are not current. Important information, such as, new foreign pipeline crossings is kept in various different files and has not been transferred over to the alignment sheets.

Station drawings are not current either although they not in a critical state. We reviewed the Haynesville station drawings which show that the pump building and control room are proposed even though both have been built.

It is also recommended that drawings be kept current.

4. **Field Operating Manuals** - At the time of the inspection Sun reported that the Control Manual, which contains key information for the safe operation of the pipeline, would be distributed to the field offices. This will be very helpful but some of the Local Operating manual’s practices were not included in the Control Manual and vise versa.

Since both of these manuals include important operational procedures and practices, it is recommended that delineations in both manuals be made, such that, there is a clear understanding of each group’s responsibilities during normal and abnormal operating conditions.

5. **Over pressure Protection** - Most of the over pressure protection devices were calibrated to the correct set point but we did observe some inconsistencies as shown in the following table.

Station	Device	Calibration		Set Point
		1996	1997	
Karnak	Station Discharge	870	880	880
Spearville	Station Discharge	860	870	870
Oak Grove	Abnormal Discharge	500	none	500
River Vlv	Abnormal Pressure	70	75	?

Sun does not have records to justify why the calibration set points were different for these two years. It does not have records to show why the device at Oak Grove was not tested in 1997 nor for defining the set point for the devices at the River Valves at the Mississippi River crossing.

We also observed that the Automation Maintenance Log, which lists alarms and problems actuated by different protective devices installed on the pipeline system, was not being evaluated. Neither the controllers in Tulsa nor the instrument specialists in the field perform this critical evaluation. The log provides critical data that should be evaluated to ensure safe operation of the pipeline.

It was also observed that the same symbols are used to record flow, suction and discharge pressures on the strip chart recorders installed at the pump stations. During certain operating conditions these curves may over lap which makes it very difficult if not impossible to read the charts. Since this data is critical to evaluating causes of abnormal operations it is recommended that unique registers be used to record this data.

Sun Pipe Line Company personnel assured us that these changes will be made and that Sun will update OPS when the changes are made.

Because of the good faith that you have exhibited up to this time, we expect that you will act to ensure that the changes are made. Please refer to CPF No. 49510C in any correspondence or communication on this manner.

Sincerely,

R. M. Seeley, Director
Southwest Region