

## Monthly Report

January, 199~~7~~<sup>8</sup>

### TOSCO Refinery at Rodeo Fenceline Monitor System

#### FTIR System

##### Operation:

The North FTIR on stream efficiency was 26.8. Most of the down time was due failures of several hardware components. The Sensor unit began malfunctioning in December. Several problems were corrected at ETG in Atlanta. The unit was shipped back to TOSCO and re-installed. Additional difficulties resulting from the normal degradation of the fiber-optic links became apparent after installation and resulted in additional down time. This was corrected by upgrading the fiber-optic interface units. The unit is now installed and operating normally.

The South FTIR on stream efficiency was 94.6 percent including 24.3 hours or 3.3 percent weather related down time. Of the remaining down time 26.7 hours or 3.6 percent was from system maintenance and a power outage to the south shelter. The remaining downtime accounting for 1.8 percent of the reporting period was due to the occasional data gaps of one averaging period or less. Some of these were due to corruptions on the hard drive of the south FTIR computer. Others were caused by a number of factors including maintenance operations and weather conditions. The disk drive on the south FTIR computer will be replaced with a redundant drive system in February.

##### Data:

The ambient gas QA compound results for the North Sensor show the mean Nitrous Oxide concentration was 0.21 ppm with a 0.032 ppm or 15.7 percent standard deviation, and the mean Methane concentration was 1.33 ppm with a 0.062 ppm or 4.6 percent standard deviation.

The ambient gas QA compound results for the South Sensor show the mean Nitrous Oxide concentration was 0.25 ppm with a 0.041 ppm or 16.12 percent standard deviation, and the mean Methane concentration was 1.53 ppm with a 0.08 ppm or 5.3 percent standard deviation.

Data summary reports are attached.

## **TDLS System**

### **OPERATION:**

The TDL system on stream efficiency was affected greatly by the January weather and the software bug that caused the units to malfunction in and after low light conditions. While they were operable for most of the reporting period, much of the data generated by the instruments was invalid. The units were disconnected from the alarm and logging system when they were malfunctioning to prevent false alarms. Logging was halted completely for several days due to these difficulties. The systems will be upgraded in February with new hardware and software that will prevent most of these difficulties.

### **DATA:**

Data summary reports are attached.

## **UV System**

### **OPERATION:**

Much of the reported downtime is weather related. Each of the four instruments differ in susceptibility to beam blocks due to low light conditions. It is suspected that this is primarily due to alignment. The system will be realigned during the next scheduled maintenance. The Sci-Tec upgrades are scheduled for late spring release.

### **DATA:**

Data summary reports are attached.

## **VOC System**

### **OPERATION:**

The downtime reported for all of the six units was due to an error that occurred in the logging software that disabled the logs without any apparent system alarms. The sensors were operational and the results reflected in the real time displays. The log files will be monitored more frequently.

### **DATA:**

Data summaries are attached.