

Monthly Report

October, 1997

TOSCO Refinery at Rodeo Fenceline Monitor System

FTIR System

Operation:

The North FTIR on stream efficiency was 98.6 percent including 2.9 hours or 0.4 percent weather related down time. Down time resulted primarily system maintenance and occasional acquisition lapses.

The South FTIR on stream efficiency was 52.0 percent with no weather related down time. Most of the down time was due to detector failure. The warranty replacement detector was installed on October 15. It then began to show signs of failure on October 18. The spare detector was returned from ETG after servicing. It was used to replace the malfunctioning detector.

Data:

The ambient gas QA compound results for the North Sensor show the mean Nitrous Oxide concentration was 0.22 ppm with a 0.026 ppm or 11.7 percent standard deviation, and the mean Methane concentration was 1.65 ppm with a 0.19 ppm or 11.4 percent standard deviation.

The ambient gas QA compound results for the South Sensor show the mean Nitrous Oxide concentration was 0.15 ppm with a 0.040 ppm or 26.7 percent standard deviation, and the mean Methane concentration was 1.47 ppm with a 0.17 ppm or 11.4 percent standard deviation.

Data summary reports are attached. Diethanolamine results are post-processed results. Difficulties with the Diethanolamine reference and script have been resolved. It is now being logged properly.

TDLS System

OPERATION:

Operational on stream efficiency was in excess of 99 percent for all of the units. Reported down time was due to unusable readings and intermittent recording lapses due to computer system maintenance.

DATA:

Data summary reports are attached. One low level Ammonia alarm was recorded on the North fence line at about the same time the North TDLS began giving intermittent high readings. There were intermittent occurrences of higher than usual H₂S results from the north TDLS. Site investigation on several occasions showed these to be false positives. Boreal is being consulted on this. No high alarm limits were approached at any time.

UV System**OPERATION:**

Problems with the UV system have not been fully resolved. Excessive downtime is being logged. There are several reasons including intermittent failure to begin writing data to log files after automatic alignment checks, recording of zeros in some log files, and occasional failure of one or more channels to report data. Sci-Tec has direct access to the system to aid in troubleshooting, but they are having difficulty maintaining a good telephone link to the network. They have several log files for troubleshooting.

DATA:

Differences in the north and south baselines for some of the channels are resulting in different values being reported for some compounds. This is especially apparent for Carbon Disulfide. The baseline values are well below alarm limits and do not affect the systems ability to detect and alarm at the designated alarm levels. It will be corrected as soon as the current system problems are resolved and this kind of fine tuning can be adequately performed.

VOC System**OPERATION:**

There is still a slight baseline drift related to temperature changes. It is especially pronounced in three of the units, E3 outfall, the North monitor shelter and the Saltwater pump house. Sensor Electronics suggested that it may be due to unusual internal temperature changes due to the black housings. The detectors were all recalibrated and are being monitored for changes. Water was found inside the sensor housing at the North Sensor Shed. The unit was no longer functioning. It was returned to Sensor Electronics for repair. The electronic stack from the Salt Water Pumphouse unit was moved to the North Sensor Shed unit. This accounts for most of the down time on these two units. The down time on the E3 Outfall unit is due to sensor drift outside of the operating range.

Detector error conditions are still being reported as high concentration values. The signal being delivered by the MOSCAD system does not match the information originally provided for this system. The alarms will be reprogrammed to work with the existing signal.

DATA:

Data summaries are attached.