

TEST SUMMARY

S01-CT-82-240-01, REV.0

(WP#82-240)

PLANT VENT STACK FLOW MEASUREMENT
CALIBRATION TEST

SAFETY RELATED

The objective of this test was to verify the Plant Vent Stack Wide Range Gas Monitor (WRGM), RT-1254, properly calculates stack flow. This test was performed to satisfy the disposition of NCR #S01-F-2222, REV. 2, attached to this summary for information.

The test method was to traverse the plant vent stack with an accurate, calibrated velocity probe and compare the empirical data obtained for three different fan combinations with the WRGM process flow indication. Beginning with two fan operation, the values were required to agree within $\pm 10\%$. The deviation for two fans was 20.4% (with the WRGM indicating low), and the procedure allowed a new data base constant calculation based on the results. Once the new constant was entered into the WRGM computer, the WRGM indicated flow was 99.9% of the empirical value.

Testing continued with single fan operation, and the deviation was 22.1% (with the WRGM once again indicating low). Three fan operation yeilded a 35.3% deviation (WRGM indicating high).

TER-01 was generated to document the out of $\pm 10\%$ deviation tolerance WRGM indication for single fan operation. NCR#S01-F-3049 was generated and retest #01 was performed to calculate a new constant to bring single fan operation into tolerance. The retest resulted in proper indication for single fan operation and conservative indication for two fan operation (as compared to empirical data which was obtained again for both fan combinations).

TER-02 was generated to document the 35.3% deviation for three fan operation. The resolution to this TER was "Accept as is" per the disposition of NCR#S01-F-3049.

TEST SUMMARY

TER-03 was generated due to step 9.4 not being performed. This step required a TCN to be written to surveillance procedure S01-II-1.14 if the RT-1254 data base constant (process flow conversion factor) was recalculated during the performance of the test. The TER resolution was "Accept as is" since this step was to be performed in Retest #01 after a new calculation was made.

Retest #01 was performed satisfactorily and NCR S01-F-3049 has been closed.

Two TCN'S were generated as follows:

TCN 01: This was a scope/intent change to Retest #01 to enable the test method specified by NCR #S01-F-3049.

TCN 02: This corrected a constant in the data base calculation for single fan operation in Retest #01 and was not a scope/intent change.

No further TCN's were generated.