



Interoffice Communication

To F. Scott

From D. Cox

Date 2-14-75

Subject Accuracy of Honeywell Fixed Point Monitors
Unit located in VII Dryer Building

A standard gas sample was run for 20 hrs and the variation due to the instrument measured. The standard deviation, σ , for the 0-50 ppm Range was found to be 0.49 ppm. At 95% confidence level a reading on the 0-50 ppm scale will be within ± 0.98 ppm of the true value. This is an unacceptable uncertainty at 0.5 to 4.0 ppm level.

Discussion

A bottle of VCM in air, 20.6 ppm Average, was attached to the analyzer in the drier building and a total of 1152 individual analysis were made. The standard deviation was derived by taking every 25th analysis. There was a 6-7 hr. cycle as was seen in the lab unit. In addition after about 12 hrs. a gradual baseline drift began to occur. The test was not run long enough to determine if this was evidence of a longer cycle drift or not. However, for all readings above 4 ppm the legal requirements of $\pm 25\%$ are reached but levels below 4 ppm cannot be used without further testing at the lower level. I recommend this unit be retested.

David S. Cox
D. S. Cox
DSC/jm

CC: KC, RDG, TRL, DEM, JWP, RMW