EPA Method 25A Notes

(key points that are not mentioned in the method)

General

- The use of this method in lieu of EPA Method 25 must be justified. Sufficient justification includes any of the following reasons: (1) the expected concentration is less than 50 ppmv as carbon, (2) the VOCs are known to consist of only carbon and hydrogen (a.k.a. hydrocarbons), or (3) the product of the percentages of carbon dioxide and water vapor exceed ~100.
- To minimize drift, the analyzer should be setup in a climate-controlled area and be operational for a minimum of one hour, preferably 24 hours, prior to testing.
- To prevent condensation of VOCs in the analyzer, the heated portions of the analyzer should be at least 10°F hotter than the rest of the sampling system.
- Any certified standard (methane, propane, etc.) may be used for calibration; however, reporting of the VOC emissions must be in accordance with the guidance in the latest revision of the Source Testing Manual.
- Protocol 1 standards must be used if they are commercially available; otherwise, standards with a certified accuracy of ±2% are required.
- Any test run in which an expired standard was used must be voided. If the expired standards are reanalyzed in a timely fashion after the testing and the values determined after reanalysis are used in all of the computations, the Department may (but is not obligated to) accept the test run provided the use of expired standards is neither widespread, nor recurrent.
- The entire sampling system (probe, heated sampling lines, valves, and manifolds) prior to the analyzer should be maintained at the higher of 248±25°F or the stack temperature. When testing Web Offset Presses, the recommended minimum temperature is 350°F. A short unheated or uninsulated section of the sampling system results in a significant drop in temperature and can cause condensation of the VOCs.
- The actual temperature of each component of the sampling system must be recorded at 15-minute intervals during testing and included in the final test report.
- The system bias checks must be conducted with a certified standard that has properties (boiling point, water solubility, and reactivity) similar to the effluent as a whole. Propane is generally <u>not acceptable</u> unless the entire sampling system is maintained at the higher of 248±25°F or the stack temperature. When testing Web Offset Presses, the recommended bias standard is hexane.
- The concentration of the standard for the system bias checks must be similar to the expected concentration of the pollutant at the sampling location.
- The analyzer temperature and pressure must be the same during sampling as it was during calibration because of the dramatic impact on the concentration.
- The pollutant concentration must be measured on a wet basis and reported on a dry basis.
- Any run in which the average pollutant concentration exceeds the span must be voided.

Destruction Efficiency Testing

- The same method should be used at the inlet and the outlet. The outlet test location determines which method should be used.
- The results (lbs./hour) at both the inlet and the outlet must be on the same basis (as propane or as VOC).
- The actual emissions should be determined as follows, which means that actual coating usage for each run may need to be determined:

$$\text{Emission Rate} = \{(\text{Coating Usage})(\text{VOC Content})(1 - \text{DE})(\text{CE})\} + \{(\text{Coating Usage})(\text{VOC Content})(1 - \text{CE})\}$$