

**APPENDIX "E"**

Test Methods and Compliance Procedures:

Determining the Destruction or Removal Efficiency  
of a Control Device.

- a. Depending upon the conditions at a test site, one of the following test methods from 40 CFR Part 60, **Appendix A** (July 1, 1992), must be used to determine volatile organic compound (VOC) concentrations of a gas stream at the inlet and outlet of a control device:
  1. Method 18.
  2. Method 25.
  3. Method 25A.
- b. The method selected shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Because of the different response factors for the many organic compounds formed during the combustion process, only Method 25, which measures VOC as carbon, shall be used for determining destruction efficiency of incinerators or catalytic incinerators, except in cases where the allowable outlet VOC concentration of the control device is less than 50 ppm as carbon, or the product of **CO<sub>2</sub>** in percent and **H<sub>2</sub>O** in percent exceeds 100, in which case Method 25A shall be used.
- c. Except as indicated in paragraphs (c)(1) and (2) of this Section, a test shall consist of three separate runs, each lasting a minimum of 60 minutes (min), unless the Department determines that process variables dictate shorter sampling times.
  1. When the method is to be used to determine the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all of the individual adsorber vessels, the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all the individual adsorber vessels.
  2. When the method is to be used to determine the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each adsorber vessel, each adsorber vessel shall be tested individually. The test for each adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.
- d. Method 1 or 1A of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall be used for velocity traverses.

- e. Method 2, 2A, 2C, or 2D of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall be used for velocity and volumetric flow rates.
- f. Method 3 or 3A of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall be used for O<sub>2</sub> and CO<sub>2</sub> analysis.
- g. Method 4 of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall be used for stack gas moisture.
- h. Methods 2, 2A, 2C, 2D, 3, 3A and 4 of 40 CFR Part 60, **Appendix A** (July 1, 1992), shall be performed, as applicable, at least twice during each test run.
- i. Use of adaptations to test methods. Use of an adaptation to any of the analytical methods specified in paragraphs (a) and (d) through (h) of this Section shall be approved by the Department on a case-by-case basis. An owner or operator shall submit sufficient documentation for the Department to find that the analytical methods specified in paragraphs (a) and (d) through (h) will yield inaccurate results and that the proposed adaptation is appropriate.