

**Source Test Protocol Worksheet - Supplement**

|  |  |
|--|--|
| <b>Information for Emitting Unit ID:</b> _____   |  |
| Emitting unit name and description:  |  |
| Describe pollution control equipment and ID (as appropriate):  |  |
| Continuous operation? <input type="checkbox"/> Batch operation? <input type="checkbox"/><br>If batch: Batch duration: _____ Batches per day: _____ |  |
| Additional emitting unit information (optional):   |  |

|  |  |
|--|--|
| <b>Source Test Planning</b>  |  |
| Proposed test date(s): _____<br>Maximum rated capacity*: _____<br>Average process rate*: _____<br>Proposed test rate*: _____<br>Based on:<br><input type="checkbox"/> 90 -110% of maximum load<br><input type="checkbox"/> Normal operating load<br><input type="checkbox"/> >50% of maximum load for Relative Accuracy Test Audit (RATA) (as applicable)<br><input type="checkbox"/> Other, please explain: _____ | Control equipment shall be operated under normal conditions during test? <input type="checkbox"/> Yes <input type="checkbox"/> No<br>If 'No', please explain:<br><br>Planned fuel types and gross heating value (as applicable) during testing*:<br><br>Anticipated fuel feed rates during testing*: |
| The following are <b>required</b> for a complete protocol:<br>► Block flow diagram/description of process facility<br>► Diagram of stack showing sampling ports, platform and adjacent duct work.  |  |
| <input type="checkbox"/> Additional source test planning information in attached file (optional).  |  |

*\*Include units of measure.*

**Source Test Program Details for Emitting Unit:** \_\_\_\_\_

(complete pages 2 - 4 for each emitting unit to be tested)

| Pollutant                               | Emission Limit(s)                            |                                   | Test Frequency       | Compliance Determination Permit Reference Condition No(s). | Applicable State/Federal Rule or Consent Decree No(s). |
|---|--|-----------------------------------|----------------------|--|--|
|   | Limit*                                       | Permit Reference Condition No(s). |                      |  |  |
| <i>Example: Particulate Matter (PM)</i> | <i>0.01 grains/dry std cubic feet (dscf)</i> | <i>II.A.1</i>                     | <i>Every 4 years</i> | <i>II.B.1, II.B.2, II.B.4, II.B.6</i>                      | <i>MAQP #0166-04, NSPS Subpart I</i>                   |
|   |  |                                   |                      |  |  |
|   |  |                                   |                      |  |  |
|   |  |                                   |                      |  |  |
|   |  |                                   |                      |  |  |

Explain how this testing fulfills the requirements of the applicable condition(s) and requirement above (e.g., meets required scheduled testing, establishes operating limits, RATA, etc.):

**Identify Standard Test Methods Used**

- Method 1 – Selection of Sampling Points and Traverse Points for Stationary Sources
- Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate
- Method 3 – Gas Analysis for the Determination of Dry Molecular Weight
- Method 3A – Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources
- Method 4 – Determination of Moisture Content in Stack Gases

**Additional Test Methods to be Performed (as appropriate)**

| Parameter or Pollutant Measured | Test Method     | No. of Runs Required | No. of Runs Anticipated | Anticipated Sample Time and Volume for Each Run* |
|---------------------------------|-----------------|----------------------|-------------------------|--|
| <i>Example: PM</i>              | <i>Method 5</i> | <i>3</i>             | <i>3</i>                | <i>60 minutes, 31.8 dscf</i>                     |
|                                 |                 |                      |                         |  |
|                                 |                 |                      |                         |  |
|                                 |                 |                      |                         |  |
|                                 |                 |                      |                         |  |
|                                 |                 |                      |                         |  |
|                                 |                 |                      |                         |  |
|                                 |                 |                      |                         |  |
|                                 |                 |                      |                         |  |

List all test methods above required to participate in the stationary source audit program:

Discuss any federal test method deviations and analytical deviations (as applicable):

- Additional test method information attached (optional).

\*Include units of measure.

**Stack Details for Emitting Unit:** \_\_\_\_\_, (complete pages 2 - 4 for each emitting unit to be tested)

**Circular Stack Details (as applicable)**  
(see Figures 1, 2, & 3)

Stack Diameter (D): \_\_\_\_\_ inches

Port Distance from:

Upstream Disturbance (A): \_\_\_\_\_ inches

Downstream Disturbance (B): \_\_\_\_\_ inches

Measured on site:  Yes  No

Area of Stack: \_\_\_\_\_ square inches

Upstream Diameters (A/D): \_\_\_\_\_

Downstream Diameters (B/D): \_\_\_\_\_

No. of Particulate Traverse Points Required: \_\_\_\_\_

No. of Non-particulate Traverse Points Required: \_\_\_\_\_

No. of Sampling Ports: \_\_\_\_\_

**Rectangular Stack Details (as applicable)**  
(see Figures 1, 2, & 4, Table 1)

Length of Stack (L): \_\_\_\_\_ inches

Width of Stack (W): \_\_\_\_\_ inches

Port Distance from:

Upstream Disturbance (A): \_\_\_\_\_ inches

Downstream Disturbance (B): \_\_\_\_\_ inches

Measured on site:  Yes  No

Equivalent Diameter (D): \_\_\_\_\_ inches

Area of Stack: \_\_\_\_\_ square inches

Upstream Diameters (A/D): \_\_\_\_\_

Downstream Diameters (B/D): \_\_\_\_\_

No. of Particulate Traverse Points Required: \_\_\_\_\_

No. of Non-particulate Traverse Points Required: \_\_\_\_\_

No. of Sampling Ports: \_\_\_\_\_ Matrix: \_\_\_\_\_

Figure 1: Minimum No. of Traverse Points for Particulate Traverses

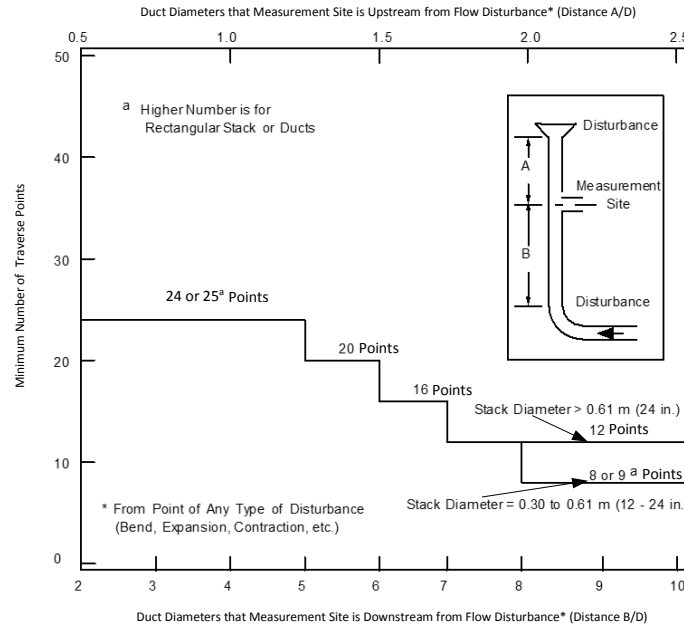


Figure 2: Minimum No. of Traverse Points for Velocity (Non-Particulate) Traverses

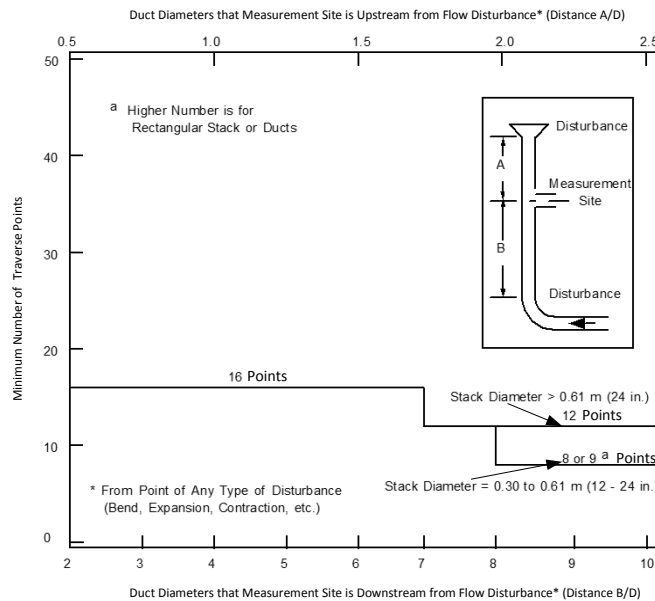


Figure 3: Circular Stack Cross-section

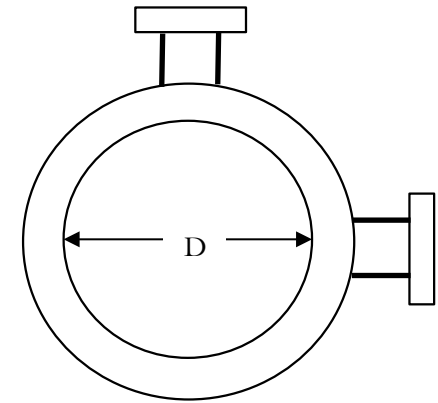


Figure 4: Rectangular Stack Cross-section

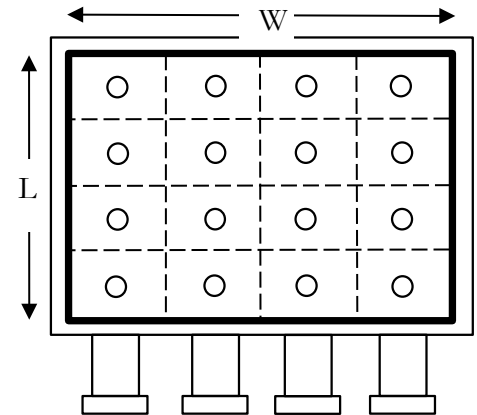


Table 1: Cross-section Layout for Rectangular Stacks

| Number of Traverse Points | Matrix |
|---------------------------|--------|
| 9                         | 3x3    |
| 12                        | 4x3    |
| 16                        | 4x4    |
| 20                        | 5x4    |
| 25                        | 5x5    |
| 30                        | 6x5    |
| 36                        | 6x6    |
| 42                        | 7x6    |
| 49                        | 7x7    |