1.3 Responsibility.

You are responsible for obtaining the equipment and supplies you will need to use this method. You should also develop your own procedures for following this method and any additioa.2 (g)-0.3sc q 0.8 psce ures itio easupe ccurte smlin(0.2 (g) -

2.1.1 Condensable PM.

CPM is collected in the water dropout impinger, the modified Greenburg Smith impinger, and the CPM filter of the sampling train as described in this method. The impinger contents are purged with nitrogen immediately after sample collection to remove dissolved sulfur dioxide (SO_2) gases from the impinger. The CPM filter is extracted with water and hexane.

liquid at stack or release conditions and captured on the filter of a stac0.2 (o) -0.1 (r)t

3.5 Primary PM (also 0.2 (o) nown as direct PM) means particles that enter the atmosphere as a direct emission from a stac0.2 (o) -0.1 (r)or an open source. Primary PM comprises two components:

Commercial size filter holders are available depending on p (e) -0.ject (e) -0.equi (e) -0.se

6.2.2 Analysis Equipment.

The following equipment is necessary for CPM sample analysis:

(a) Separatory Funnel. Glass, 1 liter.

(b) Weighing Tins. 50 ml. Glass evaporation vials, fluoropolymer beaker liners, or aluminum weighing tins can be used.

additional information on each of these items in the following summaries.

7.1.1 CPM Filter.

You must use a nonreactive, nondisintegrating polymer filter that does not have an

7.2.6

appropriate sampling site. Choose a location that maximizes the distance from upstream and downstream flow disturbnces.

8.3.2 Traverse points.

Use the required numbr of traverse points at any location, as found in Methods 5, 17, or 201A, whichever is applicabe to your test requirements. You must prevent the disturbnce and capture of any solids accumulated on the inner wall surfaces b maintaining a 1- inch distance from the stack wall (0.5 inch for sampling locations less than 24 inches in diameter).

8.4 Sampling Train Preparation.

A schematic of the sampling train used in this method is shown in Figure 1 of Section 18. All glassware that is used to collect and analyze samples must b -0.1 (t) lea

8.4.2 Backup Impinger.

The water dropout impinger is followed by a modified Greenburg Smith impinger (backup impinger) with no taper (see Figure 1 of Section 18). Place the water dropout and backup impingers in an insulated box with water at less than or equal to 30°C (less than or equal to 85°F). At the start of the tests, the water dropout and

8.5.4

it in a clean, leak-proof containea labeled with test identification and “CPM Container #8, Hexane Field Reagent Blank” (see Section 11.2.8 for analysis). Mark the liquid level on the container. Collect one hexane field reagent blank from the lot(s) of solvent used for the test.

8.5.4.10 Field train proof blank. If you did not bake the sampling train glassware as 1ecified in Section 8.4, you (in) 0.ust conduct a field train proof blank as specified in Sections 8.5.4.11 and 8.5.4.12 to de (in) 0.onstaate the cleanliness of sa (in) 0.pling tra glassware.

8.5.4.11 CPM Container #9, Field train proof blank, inorganic rinses. Prior to conducting the e (in) 0.is1n test, rinse the probe extension, condenser, each i (in) 0.pi and the connecting glas1are, and the front half of the CPM filter housg twice with water. Recover the rinse water (h) -0.0.2 (e) -0.26 0.2 (d)i 19 0 00.2 ( ) -0.2 (f.2

9.1 Daily Quality Checks.

9.6 Laboratory Analytical Balance Calibration Check.

Check the calibration of your laboratory analytical balance each day that you weigh CPM samples.

11.0

tared weighing tin and evaporate to dryness at room temperature (not to exceed

This calculation assumes no waters of hydration.

(Eq. 1)

12.2.2

13.0 Method Performance

An EPA field evaluation of the revised Method 202 showed the following precision

Methods to Sample and Analyze Condensable PM." EPRI Agreement EP-P24373/C11811 Condensable Particulate Methods:

18.0 Tables, Diagrams, Flowcharts, and Validation Data

Figure 1. Schematic of Condensable Particulate Sampling Train

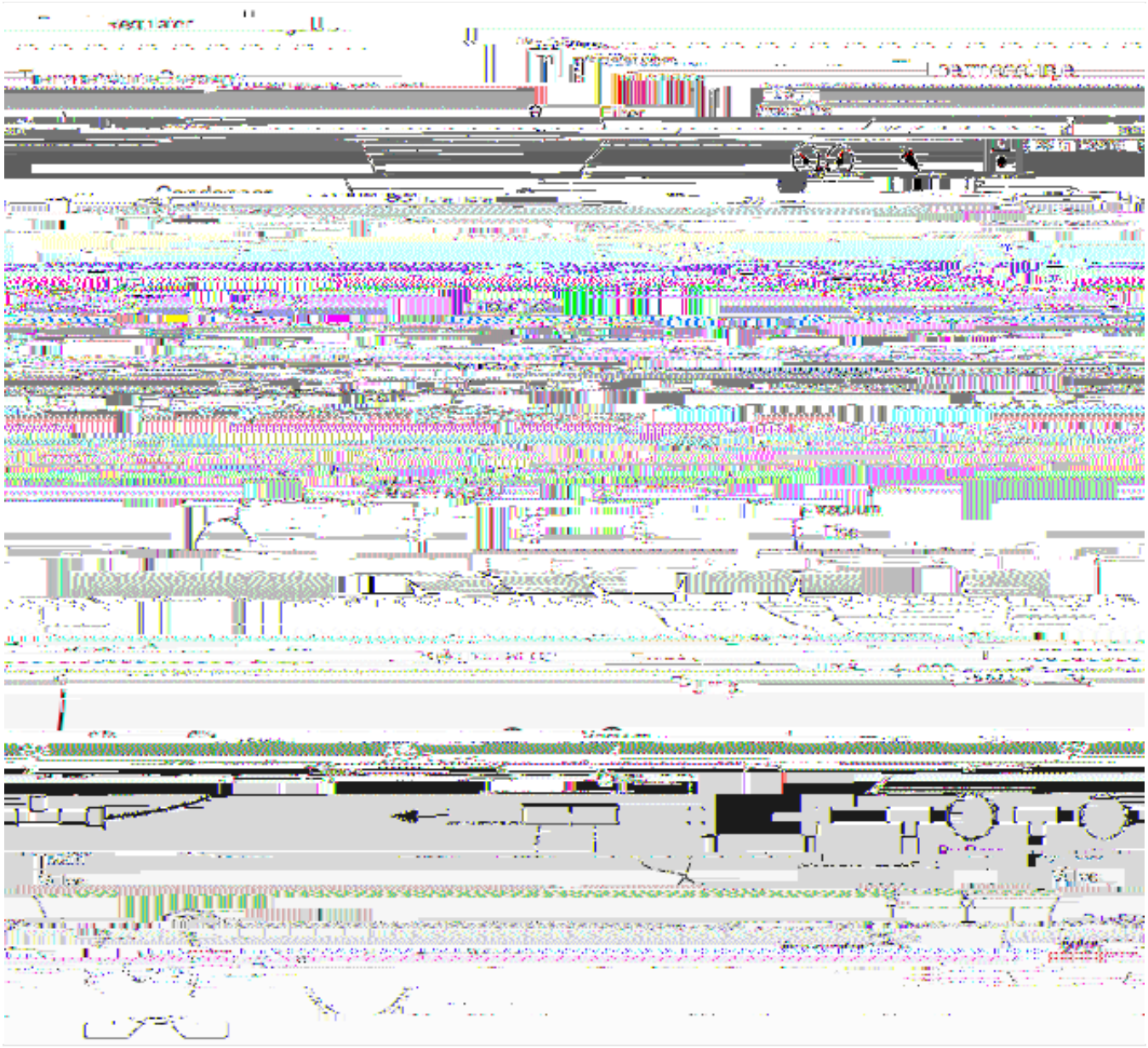

Figure 3. Nitrogen Purge Train Configuration (Pressure Purge)

Figure 4.

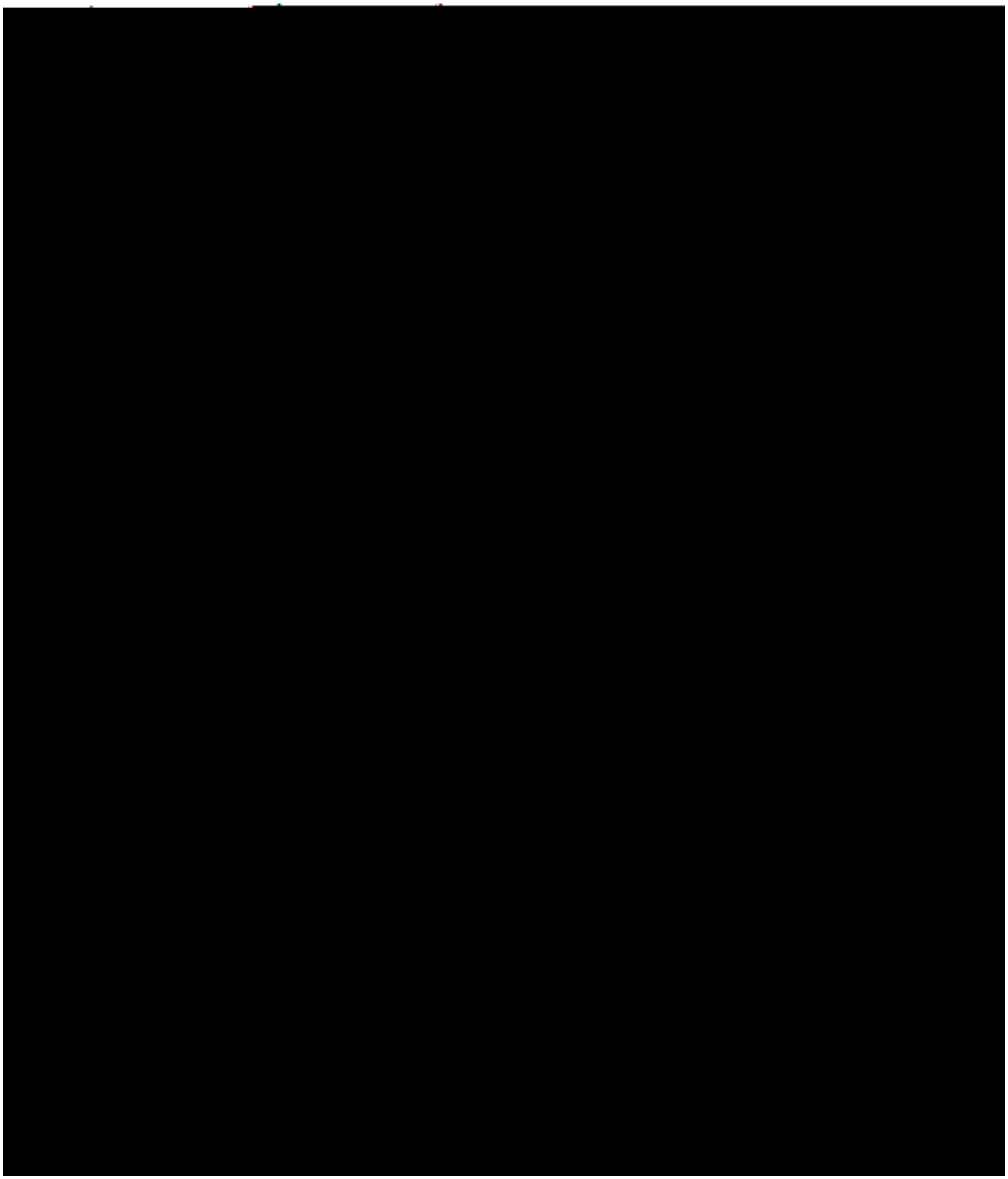

Figure 7. CPM Sample Processing Flow Chart