

Method of Field Sampling Asphalt Materials

1. Scope:

This test covers the procedure for sampling performance graded asphalt binder, emulsified asphalt, cutback asphalt, etc.

2. Apparatus:

2.1 Containers.

1 quart metal cans with screw tops used for PG 58-22, PG 58-28, PG 58-34, PG 64-22, PG 64-28, PG 64-34, PG 70-28, PG 70-34 and all other performance graded binders, SC 800, MC 70, MC 800, MC 3000, RC 70, RC 800, RC 3000 and all other grades of cutback asphalt.

1/2 gallon plastic bottles used for SS1H, CSS1H, AE-150, AE-200, CRS2 and all other liquid emulsions.

2.2 The contractor furnished bulkhead sampling valve (Submerged) shall conform to the requirements shown in figure 1. The size of the pipe may vary from the $\frac{3}{4}$ " shown.

2.3 The contractor furnished in-line asphalt sampling device shall conform approximately to the requirements shown in figure 2.

The device shown is a detachable design to be installed in the unloading line between the truck transport or railroad car and the contractor's equipment. This device shall also be installed between the contractor's storage tank and the asphalt concrete mix plant. In-line sampling valves may vary in configuration, pipe diameter and length.

In-line sampling valves may be permanently mounted in the discharge line of the supply vehicle or contractor's unloading equipment, provided the following conditions are met.

A. The size, location and configuration are such that samples can be readily obtained.

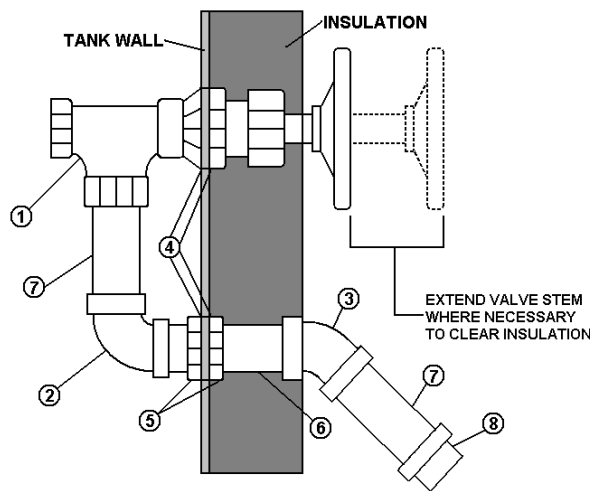
B. Adequate provisions are made to keep the sample valve clean and operable.

2.4 Gloves, tongs, or other devices for handling the containers and valves.

3. Procedure:

3.1 Bulkhead sampling valve.

- A. Inspect the containers to insure that they are clean and dry.
- B. Immediately after the beginning of the transfer of material, drain off a minimum of 1 gallon of the asphalt and then completely fill the first container.
- C. When approximately 1/2 of the load has been transferred, drain off approximately 1/2 gallon of the asphalt and then completely fill the second container.



Mount in Lower Half of the Bulkhead at Least 1' from the Shell

Ref. #	Description	No Req.
1	3/4" "Vogt" P-9844 steel angle valve or similar, panel mounted	1
2	3/4" steel or mall iron 90° elbow	1
3	3/4" steel or mall iron 45° elbow	1
4	Asbestos gaskets snug on the thread or wound with yarn	4
5	3/4" 150# screwed M. I. lock nut	2
6	3/4" X 3 1/2" = Parallel threaded steel pipe nipple (Cut from 3/4" std. tank nipple if otherwise unobtainable)	1
7	3/4" X 3" threaded steel pipe nipple	2
8	3/4" mall iron pipe cap	

Figure 1

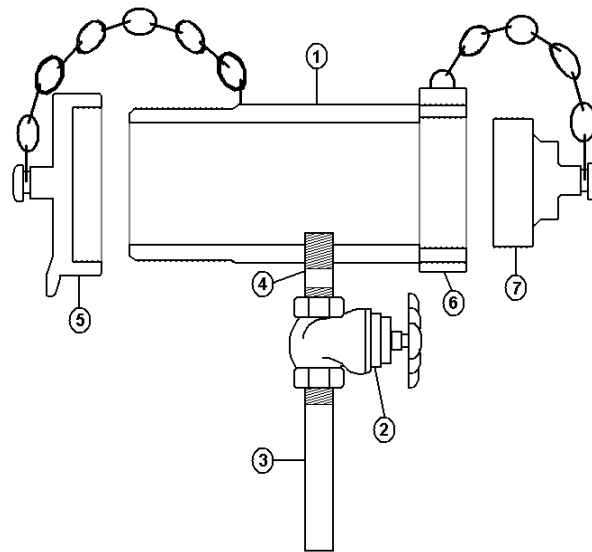
3.2 In-line sampling valve.

- A. Inspect the containers to insure they are clean and dry.
- B. Truck transport or railroad car – When approximately $\frac{1}{3}$ of the load has been used or transferred, drain off a minimum of 1 gallon of asphalt and then completely fill the first container.

| 18

When approximately $\frac{2}{3}$ of the load has been used or transferred, drain off $\frac{1}{2}$ gallon of asphalt and then completely fill the second container.

- C. Between the storage tank and the mix plant – Drain off $\frac{1}{2}$ gallon of asphalt and then completely fill 2 one quart sample containers.



Ref. #	Description	No Req.
1	3" X 10" steel pipe threaded outside at both ends and inside at one end	1
2	$\frac{3}{4}$ " steel gate valve	1
3	$\frac{3}{4}$ " X 3" steel nipple, threaded at one end	1
4	$\frac{3}{4}$ " X 2" steel close nipple	1
5	3" brass cap with chain	1
6	3" brass pipe coupling	1
7	3" brass pipe plug with chain	1

Figure 2

- 3.3 Distributor Sampling.
 - A. Inspect the containers to insure they are clean and dry.
 - B. Method 1: Drain off a minimum of 1 gallon of asphalt through a nozzle on the spray bar and completely fill 2 containers. | 18
 - C. Method 2: Take the sample from a nozzle on the spray bar after a portion of a load has been applied. Completely fill 2 containers.
 - D. Method 3: Take the sample from a distributor bulk head sampling valve (shown in the 3.1 figure) after draining off a minimum of 1 gallon from the sampling valve and then completely filling two containers. | 18
- 3.4 General.
 - A. If the asphalt is delivered in a truck transport and pup combination, take both of your samples from either one of the units. Do not take one can from one unit and the other from the other unit.
 - B. Tightly seal all sample containers, immediately after filling, using tape, if necessary.
 - C. The filled cans must not be submerged in, or cleaned with solvents, or solvent saturated rags. Spilled materials shall be wiped from the outside containers with clean dry cloths only.
 - D. Place the field sample number and project number on each container for the sample and tape the 2 containers together, i.e. 01A & 01B.
 - E. For other methods of sampling asphalt materials, use AASHTO R 66 or contact the Materials and Surfacing Office. | 18
- 4. **Report:**

Certificate of Compliance and forms DOT-1 and DOT-2.
- 5. **References:**
 - AASHTO R 66
 - DOT-1
 - DOT-2 | 18