IA ASPHALT EVAULATION
PERFORMANCE EVAULATION

SiteManager ID: _____ **PHONE #:** _____

Technician: _____ **E-Mail:** _____

DATE: _____ **Level:** ASPHALT MATERIAL SAMPLER

	PASS	FAIL
OHD L-65		
OHD L-14 NUCLEAR		
OHD L-5		

OVERALL RATING:	**PASS**	**FAIL**

OHCMTB#:

Technician (Signature): _____

OHCMTB#:

IA Observer(Signature): _____

IA Checklist
OHD L-65 Standard Method for Sampling Asphalt Mixtures

	Procedure	P	F	NA
	Sampling from Transport Units			
1	Determine the un-compacted asphalt mixture locations in accordance with OHD L-56. Visually divide the haul unit into approximately three or four equal sections. Remove approximately 0.15 m to 0.3 m (6 to 12 in.) of material from the top of the sampling area.			
2	Obtain an increment from the exposed surface.			
3	Repeat in each of the remaining sections.			
4	Combine the increments to form a sample of the required size			
	Procedure	**P**	**F**	**NA**
	Sampling Using Attached Sampling Devices			
1	Determine the un-compacted asphalt mixture locations in accordance with OHD L-56. Attached sampling devices are normally permanently attached devices that allow a sampling receptacle to pass perpendicularly through the entire stream of asphalt mixture. The operation of the mechanical sampling system may be hydraulic or pneumatic and allows the sampling receptacle to pass through the stream twice, once in each direction, without overfilling. A sampling device may also divert the entire stream into a sampling receptacle.			
2	Lightly coat the sampling receptacle attached to the sampling device with a release agent or preheat it, or both, to approximate the discharge temperature of the mix.			
3	Pass the receptacle twice through the material perpendicularly without overfilling.			
4	Transfer asphalt mixture from the sample receptacle to the sample container without loss of material.			
5	Repeat until the proper sample size has been obtained			
	Procedure	**P**	**F**	**NA**
	Sampling from a Paving Auger			
1	Determine the un-compacted asphalt mixture locations in accordance with OHD L-56. Obtain samples from the end of the auger using a square head shovel.			
2	Place the shovel in front of the auger extension, with the shovel blade flat upon the surface to be paved over.			
3	Allow the front face of the auger stream to cover the shovel with asphalt mixture, remove the shovel before the auger reaches it by lifting as vertical as possible. Place asphalt mixture in a sample container.			
4	Combine the sample increments to form a sample of the required size.			

	Procedure	P	F	NA
	Stockpiles: Sampling from a Flat Surface Created by a Loader			
1	Determine the un-compacted asphalt mixture locations in accordance with OHD L-56. Direct the loader operator to enter the stockpile with the bucket at least 0.3 m (1 ft.) above ground level without contaminating the stockpile. Obtain a full loader bucket of the asphalt mixture; tilt the bucket back and up.			
2	Form a small sampling pile at the base of the stockpile by gently rolling the asphalt mixture out of the bucket with the bucket just high enough to permit free-flow of the mixture. Repeat as necessary.			
3	Create a flat surface by having the loader "back-drag" the small pile.			
4	Obtain approximately equal increments from at least three randomly selected locations on the flat surface at least 1 ft. from the edge.			
5	Full insert the shovel, exclude the underlying material, roll back the shovel and lift the asphalt mixture slowly out of the pile to avoid mixture rolling off the shovel.			
6	Combine the sample increments to form a sample of the required size.			
	Procedure	**P**	**F**	**NA**
	Stockpiles: Sampling from a Horizontal Surface on the Stockpile Face			
1	Determine the un-compacted asphalt mixture locations in accordance with OHD L-56. Create horizontal surfaces with vertical faces in the top, middle, and bottom third of the stockpile with a shovel or a loader if one is available.			
2	Shove a flat board against the vertical face behind the sampling location to prevent sloughing of asphalt mixture. Discard the sloughed mixture to create the horizontal surface			
3	Obtain the sample from the horizontal surface as close to the intersection as possible of the horizontal and vertical faces.			
4	Obtain at least one sample increment of equal size from each of the top, middle, and bottom thirds of the pile as shown in figure 3.			
5	Combine the sample increments to form a single sample of the required size.			

	Procedure	P	F	NA
	Sampling Compacted Asphalt Mixtures			
1	Determine the sample (core) locations in accordance with OHD L-56.			
2	Determine the appropriate number of samples (cores) necessary to perform the needed task. For example, the Resident Engineer's Acceptance Procedure for Roadway Density is three samples (411.04.N.2.b).			
3	When obtaining more than one core per location, cut the cores parallel to the traffic direction. Cores should not be less than 2 inches nor more than 6 inches apart.			
4	Core holes should be filled as soon as possible, but within 24 hours of cutting.			

IA Checklist
OHD L-14
Method 2 – In-Place Density of asphalt mixture by the Nuclear Method

Procedure		P	F	NA
1	Verbal: Explain warming up of gauge.			
2	Did Technician place gauge on standard block correctly.			
3	Did Technician take standard count and record the counts.			
4	**Verbal: Where and when should standard counts be taken? Answer:** Standardization of the gauge on the reference standard is required at the start of each day's use and a permanent record of these data shall be retained. Standard counts should be taken in the same environmental conditions as the actual measurement counts.			
5	The standardization shall be performed with the gauge at least 10 m (30 Ft.) away from other radioactive sources and clear of large masses or other items which may affect the reference count rates.			
6	Test sites closer than 24" from any vertical mass or less than 12" from a vertical pavement edge, use gauge manufacturer's correction procedure.			
7	Enter unit weight of mix, in pcf, into gauge. (Marshall)			
	The Gauge is at least 3 m (10 Ft.) away from large objects. Other radioactive sources must not be within 10 m (30 Ft.) .			
8	**Have the Tech verbally explain the use of a filler material between gauge and the surface. Answer:** Maintain maximum contact between the base of the gauge and the surface of the material under test. Use filler material to fill surface voids. Spread a small amount of filler material over the test site surface and distribute it evenly. Strike off the surface with a straightedge (such as a lathe or flat-bar steel) to remove excess material. Filler Material is defined as: Fine-graded sand from the source used to produce the asphalt pavement or other acceptable materials.			
9	***Alternate Method No. 1—90-Degree Rotation*:** Place the gauge on the test site perpendicular to the direction of travel of the rollers. Using a crayon or chalk, mark the outline or footprint of the gauge. Then place the probe in the backscatter position. Take a 1-min test, and record the (wet) density reading. (see Figure 1)			
10	Rotate the gauge 90 degrees centered over the original footprint (see Figure 1). Mark the outline or footprint of the gauge. Take another 1-min test and record the (wet) density reading.			
11	If the difference between the two 1-min tests is greater than 40 kg/m_3 (2.5 lb/ft_3), retest in both directions. If the difference of the retests is still greater than 40 kg/m_3 (2.5 lb/ft_3), test at 180 and 270 degrees.			

Procedure		P	F	NA
12	The density reported for each test site shall be the average of the two individual 1-min. (wet) density readings.			
13	***Alternate Method No. 2—180-Degree Rotation*:** Place the gauge on the test site parallel to the direction of travel of the rollers. Using a crayon or chalk, mark the outline or footprint of the gauge. Then place the probe in the backscatter position. Take a 1-min test and record the (wet) density reading. (see Figure 2)			
14	Rotate the gauge 180º centered over the original footprint (see Figure 2). Take another 1-min test and record the (wet) density reading.			
15	If the difference between the two 1-min tests is greater than 40 kg/m3 (2.5 lb/ft3), retest in both directions.			
16	The density reported for each test site shall be the average of the two individual 1-min (wet) density readings.			
17	***Alternate Method No. 3*:** Place the gauge on the test site parallel to the direction of travel of the rollers. Using a crayon or chalk, mark the outline or footprint of the gauge. Then place the probe in the backscatter position. Take a 4-min test and record the (wet) density reading.			
18	**Verbal:** Does the gauges need to cool between measurements if surface is hot? Answer: Yes			
19	**How many tests are required to do a correlation? Answer:** The initial correlation must include at least 10 core locations prior to the possible elimination of specific core sites as defined in T 355 Appendix X 1. The final correlation must have a minimum of 5 and no more than 10 core locations. With in-place nuclear gauge readings corresponding for each core location.			
20	**How often should you do a new correlation? Answer**: The correlation procedure must be repeated if there is a new job mix formula. Adjustments to the job mix formula beyond tolerances established in the contract documents will constitute a new job mix formula. A correlation factor established using this procedure is only valid for the particular gauge and in the mode and at the probe depth used in the correlation procedure. If another gauge is brought onto the project, it shall be correlated using the same procedure. Multiple gauges may be correlated from the same series of cores if done at the same time.			

Remarks:

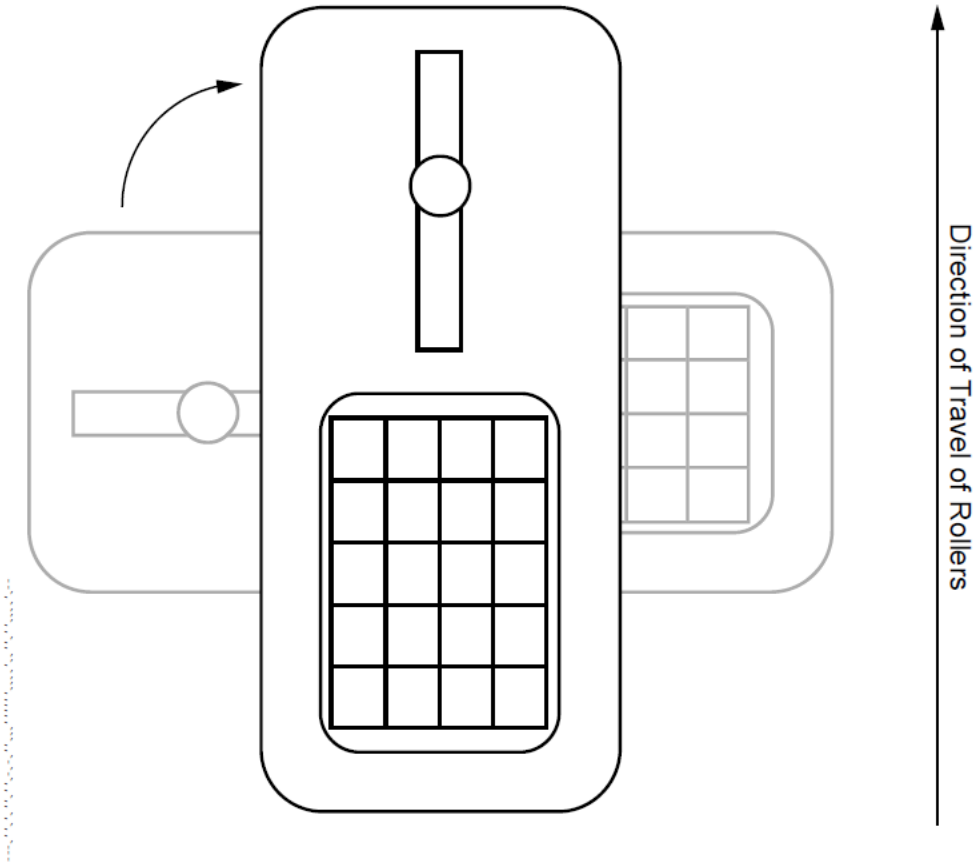

Figure 1—Footprint of the Gauge Test Site (Gauge is Rotated 90 Degrees between Readings)

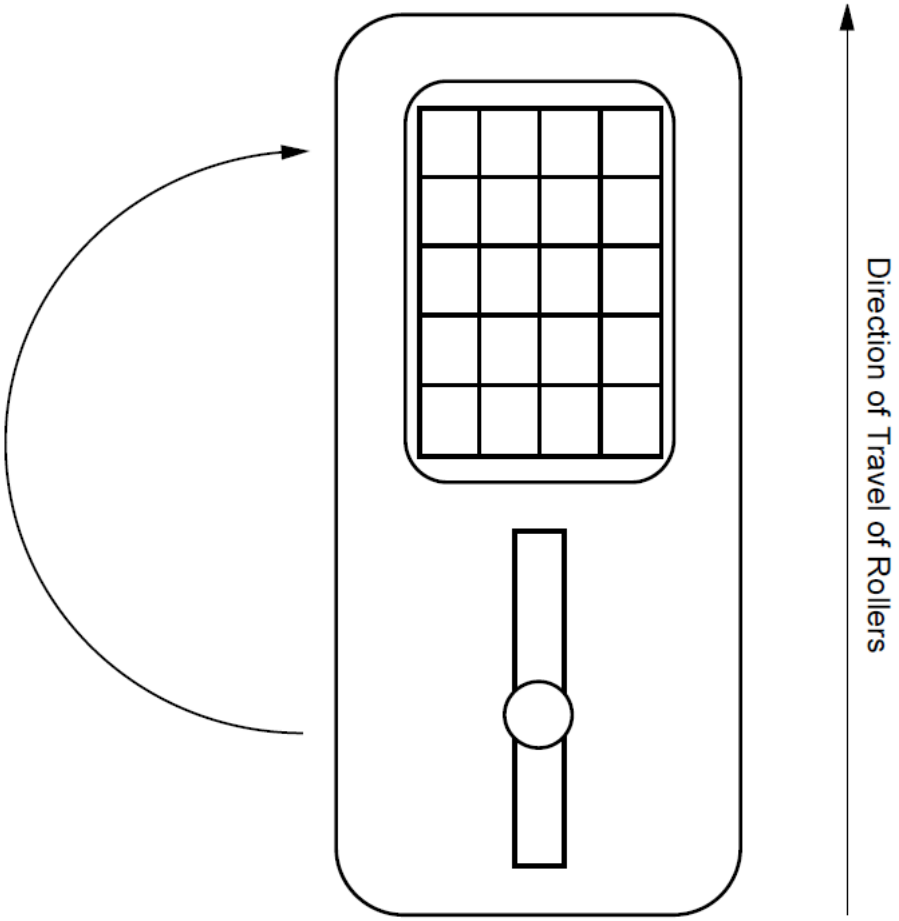

Figure 2—Footprint of the Gauge Test Site (Gauge is Rotated 180 Degrees between Readings)

IA Checklist
OHD L 5 Sampling Bituminous Material

No.	Item	P	F	NA
1	Was the proper container used for the Liquid Asphalt sample? 1qt friction lid can.			
2	Was the proper container used for the Emulsion sample? 1qt plastic container.			
3	Take care that samples are not _____. (Ans:Contaminated)			
4	Container must be perfectly _____and ___. (Ans: Clean and Dry)			
5	Emulsion must be protected from _____. (Ans: Freezing)			
6	Mark for identification on ___ or ___. (Ans: Can or Tag)			
7	Clean outside of container with a _____. (Ans: Clean dry cloth)			
8	Truck or transport sample by means of a sampling valve located in the _____ or _____ from the _____ (Ans: Discharge or Unloading line from the middle 1/3 of load)			
9	Mixing Plant and Storage tank sample location. (Ans: Sampling valve in the bituminous feed lines connecting the storage tanks to the bituminous control unit.)			
10	When sampling a non-circulating storage tank, sample it using a _____ from near the _____ withdrawn at a rate that it is not _____. Sampling device shall be _____ before taking sample.(Ans: Sample Thief, bottom, completely filled, cleaned and dipped 2 or 3 times)			
11	Waste the first _ or _ gallons from the sample valve. (Ans: 1 or 2)			
12	Container is filled to at least ____ full. (Ans: 2/3)			
13	Was the container sealed and properly cleaned?			

Remarks: