

# SEAUPG – West Region Update

November 18, 2014  
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### Question 1

**LOUISIANA**

Yes/ Pending revised La. Standard Specifications to Roads and Bridges. New book to be implemented Spring 2015.

Asphalt mixture and paving:

- Using contractor test at plant in acceptance decision.
- Payment for asphalt mixture based on roadway density (cores) and smoothness.
- Verification based on statistical analysis of material quality comparing DOTD and Contractor data (F and I).
- Non verification rules established which include dispute resolution "independent testing" ; increase in frequency of verification testing and required training
- Establishes system Independent Assurance plan and proficiency testing of all technicians required to maintain training certification. Independent Assurance laboratory has been created and is now functioning to accomplish these goals.
- For design, the minimum VFA requirement has been increased from a wide range (60-78) to 72% to increase the asphalt film thicknesses.
- Implementation of mixture test: LWT and SCB (Semi-Circular Bend) requirements to achieve balanced mix designs.

**OKLAHOMA**

4 Demo projects RAP/RAS – Specs:  
[http://www.okstate.edu/2\\_manual/specsproc2009/oe\\_sp\\_2009-208-21.pdf](http://www.okstate.edu/2_manual/specsproc2009/oe_sp_2009-208-21.pdf)

We now compute percent roadway density (PG<sub>max</sub>) by 100\*(Gmb/Gmm (Roc).

**TEXAS**

We have completely updated our entire specification book. Once every 10 years. So yes, all asphalt and hot mix specs. have been updated.

**MISSISSIPPI**

Current MDOT state specifications have only had minor updates related to asphalt binder or asphalt mixtures.

Changes being considered include:

- Modification in the use of crumb rubber
- Allowing of the use of Recycled Asphalt Shingles (RAS)
- Allowing use of RAP in SMA mixtures

### Question 2

**LOUISIANA**

Yes. LTRC conducted MSCR on numerous binders under the scope of 11-18 study. MSCR binder requirements with implementation of SCB test for mixture. Nomenclature simplified for binder requirements - E, H or PG67-22.

**OKLAHOMA**

Note:  
TP 70 = T 350  
MP 19 = M 332

MSCR recovery minimums required January 1, 2014. (50-PG 70-28, 80-PG 76-28). Full implementation sometime mid to late 2015 hopefully.

**TEXAS**

No, we have had researchers running samples for us for our binders in Texas, but have not used or implemented MSCR into any specification.

**MISSISSIPPI**

MDOT is currently performing MSCR (TP70) testing on stock sample binders and on AMRL proficiency samples. Plans to implement the MSCR binder specification (MP19) are TBD.

### Question 3

**LOUISIANA**

Little Change from last year –  
Approx 3 million tons of HMA produced in the state.  
Approximately 8 million gallons of asphalt and approx. 1 million Sq. Yd. of Asphalt Surface Treatments. Ave shot rate of 0.35 gal/SqY. New gradations for Surface treatments have been adopted to be included in the new specifications as describe above.

**OKLAHOMA**

HMA 11/04/2013-2014: 2,264,556 tons

**TEXAS**

8,086,538 tons of mix  
123,911,803 SqY of seal coats  
1,087,171 tons of RAP  
147,372 tons of RAS

**MISSISSIPPI**

Approximately 1,615,000 total tons of asphalt mixture:  
730,000 tons HMA (45%)  
885,000 tons WMA (55%)

1,127,000 yd<sup>2</sup> chip/scrub seals

### Question 4

**LOUISIANA**

Little/No change from last year. Estimated statewide, 25% reduction from previous years. FEMA funds still being provided in New Orleans area.

**OKLAHOMA**

Yes, normal asphalt pavement tonnage is 3,000,000 per year.

**TEXAS**

We are down a little, but not much. A lot of energy sector work and 3<sup>rd</sup> Party funding projects are up.

**MISSISSIPPI**

Total tonnage is down from previous year by approx. 15%

### Question 5

**LOUISIANA**

WMA mixtures have been allowed for several years. The actual amount vs HMA has not been captured. Both foamed and chemical-additive technologies have been used. 75% of LA HMA plants have foaming devices and use them all the time. Thus far, the performances of WMA are comparable to HMA.

**OKLAHOMA**

Experience to date with WMA has been similar to HMA. About 95% of WMA uses the foamed process.

11/4/2014-2015: 1,146,063 tons

72% Foamed  
51% of total asphalt pavement

Draft Extended Paving Season Table:

Lift Thickness, in./mm	Surface Temperature, °F / °C		
	HMA	WMA Foamed	WMA Non-Foamed
1 (25)	40 (4)	34 (2)	31 (2)
2 (50 - 75)	45 (7)	40 (4)	35 (2)
≥ 2 (50)	50 (10)	45 (7)	40 (4)

Question 5

TEXAS

Good so far. We are pleased with where we are at in Texas. We used 1,692,160 tons of true (< 275F) WMA. We allow it to be used as a compaction aid as well when placed above 275F.

MISSISSIPPI

MDOT has had positive experience with WMA. Currently, all contractors in MS that produce WMA are using the water foaming method versus an additive to achieve warm mix properties.

Question 6

LOUISIANA

Ongoing. Better knowledge of Traffic is desirable for highest level of application; La. has modulus inputs for current mix types and has calibrated such for our system with corrected rut predictions.

OKLAHOMA

We've been using the M-E design software for several years now and make adjustments as new information becomes available.

TEXAS

We are looking more closely at MEPDG. We have a contract with a Texas university to evaluate and do some calibration with our mixes.

MISSISSIPPI

Input data is currently being collected by MDOT's Research Division. MDOT Materials Division has purchased an AMPT and is in the process of operator training.

Question 7

LOUISIANA

Developed thin lift specs and promoted the use of thin lifts to extend pavement life much further before major reconstruction. Using OGFC's on many interstate rehab/reconstruction projects to improve safety.

OKLAHOMA

We have been using two thin lifts of 3/8" NMS mixtures. Crack filling is common.

TEXAS

All of our HMA specs allow RAP, RAS and WMA. We also require binder substitution when using higher percentages of recycled materials.

MISSISSIPPI

MDOT has a specification for a thin lift asphalt overlay as an option to bituminous surface treatments.

MDOT currently allows contractor's the option to bid jobs as hot or warm mix asphalt.

Question 8

LOUISIANA

Yes, primarily used for experimental research and forensic purposes. Data and results are also used to assist in making specification changes.

OKLAHOMA

No. We expect to get one at end of a local university fatigue research project.

TEXAS

No, but two local universities do and are using them for research. Our plans are to purchase one in the next year.

MISSISSIPPI

Yes, MDOT Materials Division has purchased an AMPT and is in the process of operator training. Data collection/utilization is still TBD.

Question 9

LOUISIANA

Material source approved; Micros & chips seals are accepted based on gradation and binder testing. There are well defined specifications for sampling, testing, and acceptance of thin lift pavements similar to HMA with the exception of in place air void testing. The contractor submits a mixture design conforming to the guidelines provided in the specifications. Tack coat is measured and paid by the gallon.

OKLAHOMA

Mix designs are submitted by the Contractor. The thin lifts are less than the standard 4 times NMS recommendation. They are designed at 3/4" thickness for 3/8" NMS but tend to be around 1" to 1.25" thick after construction.

Some 1/2" and 3/8" NMS lifts of 1.5" are being used more often.

Lift thickness guidelines at: <http://www.odot.org/materials/arguidelines.htm>

TEXAS

The contractors perform the mix designs as prescribed in the specifications, but we verify those designs. They are treated very much like our regular HMA specs, except for in-place air voids.

MISSISSIPPI

Thin lift overlays are tested and accepted by volumetric items (gradation, Ac content, total voids, volume of effective binder) set forth in the specification. Density requirement is roll to refusal and the finished profile index must be no greater than the existing surface.

Micro surfacing / Chip Seal designs are reviewed for acceptance and the aggregates and liquids are checked separately.

Question 10

LOUISIANA

Louisiana has been using the Semi-Circular Bend (SCB) test for research purposes for several years and will implement the test procedure in the revised asphalt mixture specifications.

OKLAHOMA

We are performing tack coat shear strength bond tests using LISST (Figure 6).

We are developing new PWL specifications to replace QCQA.

New Intelligent Compaction Special Provision: [http://www.odot.org/c\\_manuals/specprov2009/oe\\_sp\\_2009-411-18.pdf](http://www.odot.org/c_manuals/specprov2009/oe_sp_2009-411-18.pdf)

Contractors are concerned about Hamburg repeatability. They want correlation to performance but probably more importantly, an understanding as to why a mixture fails to meet specification limits.

TEXAS

We have done some work with asphalt rejuvenators and now have an implementation project to evaluate in the field.

We have also had quality issues this season with asphalt binders. They meet our PG spec, but are not performing as expected. We are evaluating these binders more closely.