

SEAUPG WEST REGION UPDATE

SEAUPG Annual Meeting
November 12, 2013
Baton Rouge, LA

James A. Williams, III, P.E.
Assistant Chief Engineer - Operations
Mississippi Department of Transportation




Survey of West Region

- ▣ West Region Members Respondents
 - Arkansas - Tamara Boggs
 - Louisiana - Bill King
 - Mississippi - James Williams
 - Oklahoma - Ken Hobson
 - Texas - Robert Lee

Thanks for the response!!

Survey of West Region

- ▣ Goals of 10 Question Survey
 - Evaluate the State of the Industry
 - Identify Specification Changes
 - Identify Use of New Technology
 - Identify Areas of Best Practice Between Among States

QUESTION 1 SPECIFICATION CHANGES

Does your state have specification changes/updates related to asphalt binder or mix, i.e., use of crumb rubber, modifiers, high RAP, etc.?

Arkansas - Q1

- ▣ No Changes to Report

Louisiana - Q1

- ▣ New Standard Specification Book - 2014
- ▣ Asphalt Mixture and Paving
 - Use of Contractor Tests at Plant in Acceptance Decision
 - Payment for Asphalt Mixture - Density (cores) and Smoothness
 - Verification of Contractors Test Data Based on Statistical F&T Evaluation
 - ▣ Non-Verification Rules Establish a Dispute Resolution Process Which Includes Independent Testing, Increased Testing Frequency of Verification Testing, and Required Training

Louisiana – Q1

- System Approach for Independent Assurance
 - Proficiency Sample Program Required to Maintain Technician Certification
- New VFA Requirement
 - 72% as Opposed to 69 – 78% in an Attempt to Increase Aggregate Binder Film Thickness
- N_{design} Changed from 75 and 100 to 65 and 75

Mississippi – Q1

- New Pavement Smoothness Specification
 - Mean Roughness Index - MRI
- Increase in Allowable %RAP in Surface Mixes
 - From 15% to 20% of the Total Aggregate Blend for Dense Graded SuperPave Mixes
 - RAP is to be Processed or Screened
- Revised Chip Seal Specification
 - Revised Application Rates for Aggregate and Emulsion
 - Material Application Rates Verified
 - Minimum Curing Period Required Prior to Opening of Traffic

Oklahoma – Q1

- No Changes to Report

Texas – Q1

- New Standard Specification Book Including many HMAC Changes

QUESTION 2 MSCR – AASHTO TP 70 & MP 19

Is your state doing MSCR (TP70) testing of asphalt binders? Has the MSCR Binder Specification (MP 19) been implemented or are there plans to implement?

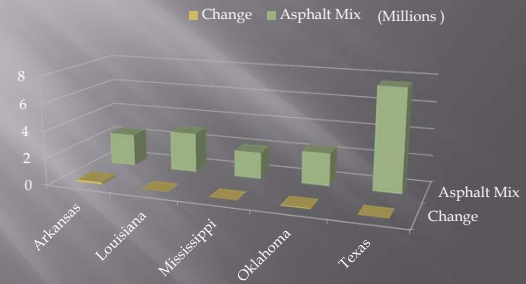
Question 2 Results

State	TP 70 Y/N	MP 19 Y/N	Comments
Arkansas	Y	N	Side by Side MSCR Testing - No Plans to Implement at This Time
Louisiana	Y	Y	Plan for Partial Implementation for Modified Binder
Mississippi	Y	Y	Data Collection of Binder Sources – Discussions Related to Implementation MP 19 for Modified Binder
Oklahoma	Y	Y	Specification for PG 76-28E with an added $J_{nr,3.2}$ Minimum Recovery of 95% - Plan to Replace Elastic Recovery Test with $J_{nr,3.2}$ Minimum Recovery
Texas	Y	Y	Only Collecting Data at This Time

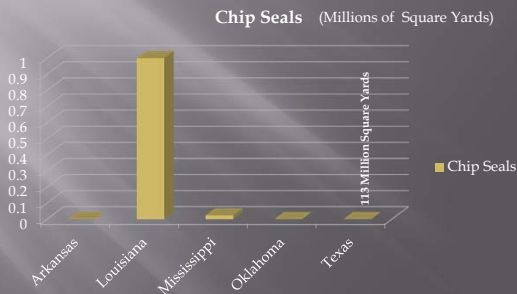
QUESTION 3 & 4 TONS OF ASPHALT MIX AND PM TREATMENTS

How many tons of HMA, square yards of chip seals, etc. of asphalt material have been placed within the last year?

Question 3 & 4 Results



Question 3 & 4 Results



QUESTION 4 FUNDING

Have funding shortages affected HMA tonnage?

Question 4- Funding Results

State	Tonnage Affected Y/N	Comments
Arkansas	N	Tonnage Increase of 15%
Louisiana	Y	Estimated 25% Reduction in Overall Tonnage
Mississippi	Y	25% Decrease Over Spread Over Several Year Span
Oklahoma	N	Slightly Above Last Year's Tonnage, but Lower Than the Typical Average
Texas	N	Down Slightly Over Previous Year

QUESTION 5 WARM MIX ASPHALT

Describe your State's experience with WMA, i.e., tons placed - specifications - and concerns.

Question 5 - WMA

State	Comments
Arkansas	315,000 Tons of WMA placed in past 12 months - No problems or concerns
Louisiana	Allowed for Several Years - Quantity of WMA not Tracked - Foaming Systems as Well as Additive Technologies Have Been Used - Performance Comparable to HMA
Mississippi	Allowed for Several Years - 65% of All Dense Graded Mixtures Produced as WMA Utilizing Asphalt Foaming Devices - No Issues Noted Related to WMA
Oklahoma	WMA Similar in Performance to HMA - Approximately 95% of WMA is Produced by Asphalt Foaming - Additional Design Considerations for WMA - Considering Extended Paving Season with WMA
Texas	16.2% of Mixture Tons Produced as WMA - Concerned Regarding Using WMA with RAS

QUESTION 6 MEPDG IMPLEMENTATION

What is the status of MEPDG implementation in your state?

Question 6 - MEPDG

State	Implementing? Y/N	Comments
Arkansas	N	Implementation is Under Investigation
Louisiana	Y	Better Knowledge of Traffic is Desired - Inputs for Mixture Modulus and Correlated to Rut Predictions
Mississippi	Y	Extensive Effort on Local Calibration is Nearing Completion - MDOT Training Underway
Oklahoma	Y	Currently Using for Design
Texas	N	Working with TTI on the Development of TXME

QUESTION 7 LOWERING COST

What Methods has your State implemented to lower cost for maintenance, preservation or reducing pavement cost?

Question 7 - Lowering Cost

State	Comments
Arkansas	WMA is an Option on All Contracts - Allowing RAS in PG 64-22 Mixes by Request from the Contractor
Louisiana	Developed and Implemented Thin Lift Specifications - Using OGFC on Many Interstate Rehab/Reconstruction Projects
Mississippi	Utilizing and Promoting use of Ultra-Thin Lift Specification - Have Completed Several Full Depth Reclamation Projects with Several More in Planning Stages - Chip Seals
Oklahoma	Using Two 3/8" NMS Thin Lift Mixtures - Crack Filling is Common
Texas	Using More PP Strategies, Seal Coats, In-Place Recycling, Microsurfacing, More Recycled Materials - Using More Thin Lift Mixes

QUESTION 8 AMPT USAGE

Does your state own/operated an AMPT? If so, how is the data being utilized?

Question 8 – AMPT Usage

State	Own? Y/N	Comments
Arkansas	N	No Comment
Louisiana	Y	Experimental Research and Forensic Purposes
Mississippi	Y	Using to Validate MEPDG Material Characterization Inputs for Mixtures and to Develop Inputs for New Mixtures (SMA/OGFC)
Oklahoma	N	University of Oklahoma has Machine Which is Used for Fatigue, Dynamic Modulus, and Flow Number Testing for Ongoing Research – ODOT Will Purchase AMPT at the End of the Three Year Research Project
Texas	N	Two Universities Doing Research for TxDOT Have the Machine and Use it for Research Purposes

QUESTION 9 S&T OF PAVEMENT PRESERVATION TREATMENTS

How are you sampling, testing, and accepting pavement preservation treatments (micros, chips, thin lifts, etc.)? Are the mixture designs prescribed by the specifications or is a mixture design submitted by the contractor?

Question 9 – Pavement Preservation

State	Comments
Arkansas	Gradation and Binder Content Testing – Mix Designs are Submitted by the Contractor
Louisiana	Material Source Approval – Micros and Chips Accepted Based on Gradation and Binder Testing – Thin Lifts Accepted by Established HMA Testing Protocols – Tack Coat is Measured and Paid by the Gallon
Mississippi	Source Approval of Component Materials – Testing of Gradation, Emulsion, and Application Spread Rates are Required for Chip Seals – Normal Mixture Characterization Testing Done for Thin Lifts
Oklahoma	Mix Designs by the Contractor for Asphalt Mixture
Texas	Mix Designs by the Contractor and Verified by TxDOT – Materials are Sampled and Tested at Defined Frequencies

QUESTION 10 OTHER TOPICS

Please provide any other topics you would like mentioned in this update.

Question 10 – Other Topics

State	Comments
Arkansas	None
Louisiana	The Semi-Circular Bend (SCB) Test has been used for research purposes and will be implemented in future asphalt mixture specifications
Mississippi	None
Oklahoma	RAP/RAS binder replacement specification to be piloted Hamburg round robin experiment to reduce testing variability T 84 and T 85 round robin experiment to evaluate test results for highly absorptive aggregate Plan to purchase Shear Tester to test Tack Coat Bond Strengths

Question 10 – Other Topics Oklahoma

- Bleeding Noted in Norman, OK Project and Observed Stripping on I-40 Near Texas Border



Question 10 - Other Topics Oklahoma

- Slippage Due to Low Tack Coat Rate



Question 10 - Other Topics

State	Comments
Texas	Continue to Investigated More Uses of the Pave-IR Bar Which is Currently Used at the Contractor's Discretion
	Conducting Research on Asphalt Rejuvenators

Smart Use of Resources?

