








## West Region Update

Southeastern Asphalt User-Producer Group  
Ryan Barborak, P.E.

December 2, 2019

### West Region States Update

Mix (Tons)

	2017	2018	
Arkansas	2.5 M	3.0 M	
Louisiana	---	---	
Mississippi	4.7 M	3.6 M	
Oklahoma	2.0 M	2.4 M*	
Texas	16.6 M**	15.9 M**	


\*4.2 M including commercial  
\*\*FY2018 and FY2019

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### 2020 Forecast

Is the level of asphalt work set to increase, decrease, or hold steady in 2020?

- Arkansas
  - Increase
- Louisiana
  - Hopefully remain steady
- Mississippi
  - Slight increase
- Oklahoma
  - Steady
- Texas
  - Steady/Slight increase




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### Funding

What is the state of the DOT Funding for 2020?


- Arkansas
  - ACT 416 allocated funds from gas and diesel sales tax, increased registration fees on electric and hybrid vehicles and casino revenues. Revenue of \$95 M per year by 2023 is expected and will be utilized for maintenance and rehabilitation (not new construction).
- Louisiana
  - GARVEE bonds, attempted to pass a gas tax and was not successful, further attempts are expected
- Mississippi
  - Implementation of state lottery and a portion of the funds collected
- Oklahoma
  - Oil economy dependent, currently strong and growing
- Texas
  - Propositions 1 and 7
    - Additional \$70 Billion over 10 years



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### Specification Changes and Updates



- Arkansas
  - Recently changed air voids to 4.0% for all mixes (previously 4.5% on PG64-22 and PG70-22 mixes)
- Louisiana
  - Pilot for non-destructive density for pay
  - Reviewing spec changes from September 2018
- Mississippi
  - Lot determination
    - Old Method – Divide up lots by tonnage from previous day
    - New Method – Each lot will be 400 tons
- Oklahoma
  - REOB, PPA limitations
  - $\Delta T_c$  implementation
  - Balanced Mix Design, IDEAL CT / NFlex
- Texas
  - Significant changes to dense grade and Superpave specifications
    - SS3076 – Dense-Graded Hot-Mix Asphalt
    - SS3077 – Superpave Mixtures



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### Recycled Materials

- Arkansas
  - Use of recycled materials is no longer allowed in PG76-22 mixes
- Louisiana
  - None since most recent spec changes
  - Increase RAP 5% if screened on 1" and inclusion of performance testing (SCB/LWT)
- Mississippi
  - No changes
  - Superpave (up to 30% RAP), SMA (up to 10% RAP), OGFC (no RAP allowed)
- Oklahoma
  - No changes
- Texas
  - Superpave – Reduced recycled binder ratio from 0.20 to 0.15 for surface mixes
  - Dense-Graded – Reduced recycled binder ratio from 0.20 to 0.10 for surface mixes
  - Change verbiage regarding RAS





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### Asphalt Binder Quality

Are you experiencing any trends in asphalt binder supply or overall binder quality in your state?

- Arkansas
  - No issues with binder supply and no documented issues with binder quality
- Louisiana
  - Compatibility issues with plant blended CRM modifiers
  - Potential compatibility issues with aggregates/antistripping
- Mississippi
  - Good quality and good supply
- Oklahoma
  - Unfortunately it appears yes
- Texas
  - No issues with binder supply
  - Some issues with binder quality
  - Added limit for REOB and PPA (XRF analysis)
  - Sampling contract
  - Storing of asphalt samples
  - Barcode method (expect full implementation by January 2020)

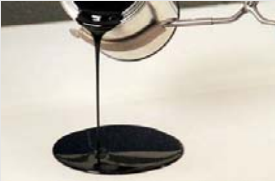


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### MSCR and Other Binder Testing

Do you specify Binder by AASHTO M320 and grade bumping for increased traffic or AASHTO M332?

- Arkansas
  - M320
- Louisiana
  - Both
- Mississippi
  - Specifies binder by M320 and grade bumps for increased traffic (PG76-22 for high traffic and PG67-22 for all other roads)
- Oklahoma
  - Yes
- Texas
  - M320




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### MSCR and Other Binder Testing

Are you planning to implement AASHTO M332 in the future and will you use the X1 curve in the specification?

- Arkansas
  - No
  - No
- Louisiana
  - Implemented for polymer modified binders
  - Yes for 76-22m and PG76-22rm
- Mississippi
  - No
  - No
- Oklahoma
  - Yes
  - Yes
- Texas
  - Partial implementation - replace elastic recovery test with % recovery of MSCR
  - No






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### Pavement Durability

Is pavement durability (cracking and raveling) an issue in your state and to what degree?

- Arkansas
  - Yes
  - 25-50%
- Louisiana
  - Yes
- Mississippi
  - Somewhat; raveling in OGFC
  - 10-25%
- Oklahoma
  - Yes
  - 10-25%
- Texas
  - Yes
  - 10-25%






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### Asphalt Binder Quality

Do you have plans for implementation of the  $\Delta T_c$  parameter into your specifications and what are the proposed aging requirements?

- Arkansas
  - Not at this time
- Louisiana
  - Currently evaluating
- Mississippi
  - No
- Oklahoma
  - Yes -5°C, 20 hour cure
- Texas
  - Present in our BMD specification -6°C, 20 hour PAV
  - Perform on forensics
  - Investigating alternate 4mm DSR




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### Ground Tire Rubber

Do you allow or specify use of ground tire rubber (GTR) to produce modified asphalt binders or mixtures, if so, recipe or performance, and what is the most common type of GTR used?

- Arkansas
  - No
- Louisiana
  - Yes, mesh size; cryogenic and ambient allowed; PG+; MSCR, and wet plant blended
- Mississippi
  - No
- Oklahoma
  - Yes, performance, and both terminal blend and dry process
- Texas
  - Yes, performance, and both terminal blend and dry process




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### Balanced Mix Design (BMD)

Have you implemented or plan on implementing a BMD Method and if so, where are you in your implementation process and which tests are you considering?

- Arkansas
  - Not at this time, have a research project looking at possible cracking tests to implement in the future
- Louisiana
  - Yes implemented in 2016, SCB Jc (ASTM D8044) and Hamburg LWT
- Mississippi
  - Not yet; research projects are on-going to determine the best course of action, Hamburg/APA and IDEAL-CT
- Oklahoma
  - Yes, several pilot projects, intent to implement in 2021, Hamburg, IDEAL-CT/NFlex
- Texas
  - Yes, Currently utilizing SS3074 to construct approximately 12 Test Projects across the state with several test sections
  - Hamburg, IDEAL-RT, Overlay, IDEAL-CT
  - Potential implementation in 2022

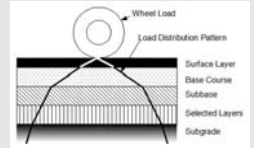


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### Pavement Design

Do you use or plan on using the MEPDG and where are you in the implementation process?

- Arkansas
  - Possibly in the future
  - Still in the research phase
- Louisiana
  - Evaluating
- Mississippi
  - Research is on-going
  - Still doing testing using the AMPT to build our library of current mixes
- Oklahoma
  - Yes
  - ??
- Texas
  - Not at the moment (FPS 21)
  - Currently evaluating TxME




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### Non-Tracking Materials

Do you allow specialized non-tracking materials to be used for tack and underseal on paving projects and what is your experience?

- Arkansas
  - Yes, limited experience. We have a SP and use it at the contractor's request.
- Louisiana
  - Yes, if applied correctly. Contractors and Area DOT like using them, hot applied has shown best tracking resistance but present safety concerns
- Mississippi
  - Yes, good experience so far. Most is used for OGFC.
- Oklahoma
  - Yes, good
- Texas
  - Yes, they are allowed in all HMA Items in our Standard Specification
  - SS3084 Bonding Course and SS3085 Underseal Course
  - Material Producer List/Tex-249-F/New Spec Informational Only
  - Good if applied correctly



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### Cold Mix

Are specialized cold mix products allowed and what is your experience with these types of products?

- Arkansas
  - Yes
  - We use them for maintenance contracts and at contractor's request.
- Louisiana
  - Allowed for maintenance work
- Mississippi
  - No
- Oklahoma
  - Yes
  - Division level decisions and work
- Texas
  - Yes, DMS9202 and DMS9203
  - SCM, ASPPM, and NVM most common
  - Recently added NVM - No hydrocarbon volatile content allowed
  - Good performance

Special Cutback Material (SCM)  
All Season Pre-Coated Patching Mixture (ASPPM)  
Non-Volatile Mixture (NVM)

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**Additional Comments**

- Louisiana
  - Developing a 4.75 mm mixture design for spec.
  - Potential alternatives for moisture sensitivity testing.
  - Potential alternatives for long term mixture aging to reduce mix design time (crack testing)

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**Thank you**

- Thank you to all the states that participate in this survey
  - Arkansas
  - Louisiana
  - Mississippi
  - Oklahoma
  - Texas

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**Questions/Contacts**

Ryan Barborak  
Flexible Pavements Section Director  
(512)506-5863  
[Ryan.Barborak@txdot.gov](mailto:Ryan.Barborak@txdot.gov)

Enad Mahmoud  
Asphalt Binder Branch Manager  
(512)506-5217  
[Enad.Mahmoud@txdot.gov](mailto:Enad.Mahmoud@txdot.gov)

Travis Patton  
Bituminous Branch Manager  
(512)506-5841  
[Travis.Patton@txdot.gov](mailto:Travis.Patton@txdot.gov)

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