

Binder Task Group – 2012

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MSCR Task Force Report

- ▶ **Overview**
 - What is Multiple Stress Creep Recovery (MSCR) test?
 - Purpose of MSCR Task Force activities
 - Task Force WebEx meetings and topics
- ▶ **MSCR Recovery Study**
- ▶ **Recommendations**
 - Adopt MSCR Recovery as PG Plus test (TXDOT)
 - Adopt MP 19 (LA DOT)

What is MSCR?

- ▶ MSCR (*pronounced massacre*)
- ▶ The MSCR test is a laboratory test for measuring high temperature properties of an asphalt binder which:
 - can replace the existing high temp. test for short term aged binder in M 320 ($G^*/\sin\delta$)
 - can better relate predicted laboratory polymer-modified binders' high temp properties to actual rutting performance of in-service pavements

Barriers to Implementation?

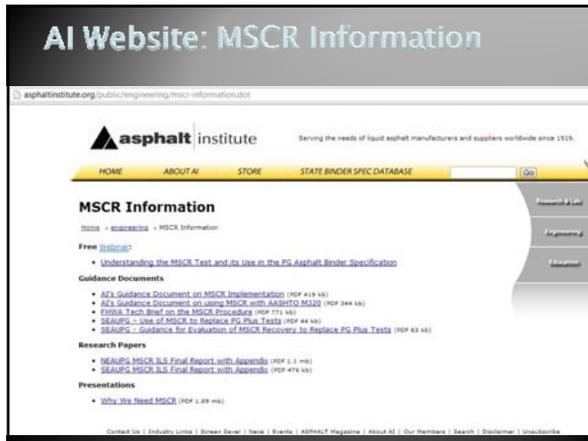
- ▶ AI believes that MSCR is an advancement in technology that can replace the existing high temp. test in M 320 ($G^*/\sin\delta$)
- ▶ However, barriers exist to implementation
 - Lack of manpower to do necessary transitional testing to validate MSCR test and specifications
 - Lack of suitable DSR equipment and software
 - Concern about how MSCR will affect binder supply and polymer modification
 - Lack of guidance from regional partners/suppliers

MSCR Task Force

- ▶ **Purpose?**
 - To move evaluation of MSCR test and specification forward
 - To provide a resource and information for all SEAUPG states
 - To identify and address any barriers to implementation
 - To conduct MSCR ILS (Round Robin)
 - To consider possible implementation of MSCR in the future

WebEx Meetings

- ▶ MSCR TF has met 12 times using WebEx
- ▶ Meetings are well attended and interest is good
- ▶ Early WebEx meetings provided background
- ▶ Later WebEx meetings included more technical presentations, interpretation of data; ILS analysis; MSCR Recovery study; discussion of implementation



Updates

- ▶ Some barriers to implementation have been addressed
 - Several states have purchased new DSRs
 - States are becoming more familiar with performing the MSCR testing (ILS, MSCR Recovery study, AMRL proficiency, etc)
 - Suppliers have been performing MSCR testing of their products
 - AI Guidance documents have been developed and provided

Summary – MSCR Task Force

- ▶ Significant progress has been made since MSCR Task Force was formed two years ago
- ▶ All 14 SEAUPG states are now participating
- ▶ WebEx meetings continue to be well attended by suppliers/ states
- ▶ Latest activity: MSCR Recovery study
- ▶ States are starting to propose implementation

Concerns

- ▶ New names may cause confusion.
- ▶ Do not want cost to increase.
- ▶ Need a QC criteria on original binder.
- ▶ Need MP19 ETG recommendations to be processed through AASHTO.

Grade Comparison Examples

Example 1		Example 2	
MP19	M320	MP19	M320
▶ 64S	PG64	58S	PG58
▶ 64H	PG70	58H	PG64
▶ 64V	PG76	58V	PG70
▶ 64E	PG82	58E	PG76

Path Forward

- ▶ Replacement of PG+ specs with MSCR % Recovery
- ▶ Draft a supplemental specification for the SEAUPG states.
- ▶ Webinar to review.
- ▶ Target implementation 2013.

Questions?

