

AASHTO TSP•2 - Emulsion Task Force (ETF) Meeting

June 21-22, 2022

The Heritage Group Innovation Center and Research Lab

6320 Intech Way (near 71st street and I-465), Indianapolis, IN 46278

Welcome, Roll Call, Housekeeping and General Info- Franco

- a. Motion made to approve minutes from our last meeting - minutes unanimously approved.
- b. EFT started around 2008, now under TSP2, run by the NCPP.
- c. Larry Galehouse has retired, statements of gratitude and best wishes were made by Franco and the group.
- d. Bouzid Choubane is the director of NCPP and replaced Larry on the ETF. Rex Eberly is now working for the NCPP.
- e. Self-introductions of all participants, and Attendance sheet circulated.

1) ETF Review-NCHRP

- a. Several NCHRP projects are completed, and they are now with AASHTO to become specs.
- b. NCHRP 10-124 is looking for project panelists – talk to Colin Franco about becoming a panelist.
- c. <https://www.mytrb.org/?CommitteeRotationTarget=/Panel/AvailableProjects>

2) AASHTO Committee on Materials & Pavements Update

1. TS 2a – Emulsified Asphalts--Pfeifer

- a. Most recent meeting on web. Resolved comp ballot
- b. Revisions to T59 and T72. Went through whole ballot process
- c. Tack coat provisional standards moved to full AASHTO standards with new test numbers.
- d. Updates to temperature measurements requirement across many standards.
- e. Colin provided an update on the ETF.
- f. New Ballot from comments from Montana DOT for M316. Add hard and soft grade.
- g. TFASH getting to 2a standards soon.
- h. Hopefully getting to performance-based emulsion standards soon. [Note: – revisions to residue recovery methods are in progress per NCHRP 9-63.]

b. TS 5b – Bridge & Pavement Preservation -Franco

- a. Currently looking at 5 standards CIR, CPR, tack coat, slurry, scrub seal.

4) Research Projects Currently supporting ETF Goals

a. NCHRP 9-62 Rapid Tests and Specifications for Construction of Asphalt-Treated Cold Recycled Pavements.

1. This is done. New test methods were developed, for opening of CIR.

b. NCHRP 14-43 Construction Guide Specifications for Cold Central Plant Recycling and Cold In-Place Recycling.

1. Moving to AASHTO COMP.

c. NCHRP 14-44 Construction Guide Specifications for Slurry Seals, Scrub Seals, and Tack Coats

1. These standards are now with AASHTO COMP.

d. NCHRP 14-48 Construction Guide Specifications for Pavement Treatments - Sand Seals and Ultra-thin Bonded Surface Treatments

1. A new project. NCHRP Panel has been assembled

e. NCHRP 10-144 Developing Performance and Safety Specifications for Rejuvenating Seals

1. NCAT is going to work on this project.

f. NCHRP 10-124 Development of Field tests for embedment of chip seals.

1. \$400k. needs panel members!

g. NCHRP 9-63 for binders got more time and more money (\$500K).

1. May revise the residue recovery methods. Need better ovens and standards.

5) Stakeholder Updates

- a. FP2 b. Recently held a strategic planning session. Starting with new folks on the board.
- b. AEMA just held a board meeting in Charleston SC Added a student level membership to their program for 50-dollar annual fee to get new info and younger folks involved.
ARRA No updates.
- c. ISSA board meeting this month. Working on three things: field sampling and ac content, college course development, RFP from ARDOT to do web-based training to make training for micros and combination treatments.
- d. FHWA (PPTFG) may be working on a new strategic plan. Roadmap updated in 2020.
- e. AASHTO Resource. Resuming assessments in all US states. Aggregate PSP samples split to gravity and gradation and degradation. Polymer modified emulsion PSP sample. Annual TechEX meeting in Minneapolis was a huge success, next meeting in Houston TX.
- f. NCPP. Staff changes. Bouzid is the Director of NCPP, and Rex Eberly was hired recently. NCPP resumed in-person regional PP meetings.

6) Conversation Generated from Stakeholder updates:

- a. Type III Cement has changed. Type II cannot be found at all. What other types are people using? This effects T59 cement mixing.

Action item: discuss this moving forward and refer to AASHTO COMP.

- b. The group is wondering if the ISSA standards can be handed over to AASHTO. Specifically, the test procedures (TB-100 through TB-149). Some states agreed that it would be easier to spec out these standards if they were AASHTO standards.

Action Item: Larry Tompkins will discuss this possibility at the next ISSA board meeting and update the ETF.

7) Asphalt Content in Micro Surfacing Mixtures Update- Morse

- a. Presentation. looking at improvements to micro surfacing. Especially with AC content. Gave an update about what tests ILDOT does for mix design verification. Did a round robin sample of micro surfacing for extraction for different extraction methods (centrifuge, auto, etc.)
- b. Copied an OHDOT micro form. AC binder is +/- 1%. Aggregate moisture is +/- 1.5%. Collect one sample per project. In 2022 did AC round robin. 8 mixes, 16 samples.

8) Mix Design & Material Testing Slurry Seal Systems -Houston

- a. There is also a video of this presentation from Arkema / road science available.

9) NCHRP 9-63 (EA-PG) Update -Anderson

- a. presentation on developing a national performance-related material specification for emulsified asphalt binder for use with chip seal and micro surfacing / slurry seal. Can be found at <http://tsp2-etf.org/meetings-and-presentations/>

b. Emulsion testing for use with chip seals and micro/slurry. Adriana is lead for NCAT. EAPG for emulsified asphalt performance grade. Quincy air flow over did not meet spec of 50 – 200 changes per hour. Dispatch oven did meet spec. ASTM D7944 is not recommended. AASHTO R78 procedure B is getting further evaluation by the AI. May have a Glover-Rowe parameter in the spec. These samples aged a lot in the field in one year, more than HMA. This is reheated material, which may affect the results.

10) NCAT / MN Road Pavement Preservation Findings -Vargas, Geib

- a. presentations for the northern and southern portions of this study. Presentations can be found <http://tsp2-etf.org/meetings-and-presentations/>

11) Subcommittee Sessions

- a. Co-chair Reports (past milestones – present work – future goals)
- b. Presentations by co-chairs from each subcommittee. These presentations are available here <http://tsp2-etf.org/meetings-and-presentations/>

Breakout with Full ETF Participation

Asphalt Emulsion Binders Subcommittee -Voth

- a. Rejuvenator working group and modifiers working group. Have a M-316 modification for CHFRS-2P, pen ranges. Will help with NCHRP 9-63. New NCHRP 10-114 for rejuvenators. See MP-43.

Research Subcommittee -Sade

- b. 3 working groups: review completed research, look at construction equipment, research roadmap. Each working group has a project charter.

Emulsion Treatments Subcommittee- Morse, Walbeck

- c. Reviewed construction guide specs, drafted fog seal best practices. Sent five construction guide specs to AASHTO.

4:30 p.m. Adjourn Day One

Day 2

Wednesday, June 22nd

1) Morning Charge- Franco

- d. Participants from the LEAP program through AEMA joined us for the second day of the meeting. This is a leadership program for young professionals in the asphalt construction industry. More information about the program can be found here <https://www.aema.org/page/Leap>

2) PWL Statistical Method for Pavement Preservation- Dvorak

- e. Presentation about quality programs. See <http://tsp2-etf.org/meetings-and-presentations/>
- f. This presentation covered technician certification, independent assurance, contractor quality control, laboratory accreditation, and quality assurance programs.

- g. 23CFR 637 Subpart B. Quality Assurance (QA). About 50% of project QA is for materials quality and 50% for quality of workmanship.
- h. Certification/Qualification! of inspectors RI cannot give a written test (union issue).
- i. QC by contractor
- j. Lab accreditation
- k. Dispute resolution
- l. Agency Acceptance
- m. Independent Assurance.
- n. 32 DOT use PWL for HMA, MnDOT does not. Prefers both incentives and disincentives. What should we measure for pp treatments?

3) QA, Education & Certification Subcommittee -Teto,Betsold, Franco

- a. Courses for all the treatments need to be standardized.
- b. NCPP does training/certification!
- c. Ding (Chico State) does training in CA, Andrew does training in AK, NETTCP does training in the North East. NCPP and PPRA nationwide training etc.
- d. Certification and Testing: Should it be the same? Per Bobby, NCPP may be leading a national effort, same class, same test, regional training groups(maybe). Rex Eberly with NCPP is a great resource to discuss what is Quality in preservation.
Action Item: Bouzid to bring a group of trainers together to pursue the unified training and certification effort.

4) NCHRP 20-44(26) Status & Next Steps- Tomkins/Choubane

- a. Presentation. Larry Tomkins gave a presentation on the status of the project and the participation by States and local Agencies. A lot of Demo projects are being done this year and a few next year.
- b. Bouzid to start a task force on training/certification (see 3 d above).

5) Messaging & Implementation Subcommittee- Tomkins, Brewster

- a. Messaging & Implementation Subcommittee for 20-44(26) chip seal, micro surfacing, fog seal
- b. Based on NCHRP study
- c. Materials standards
- d. Design practice
- e. Construction guide specs
- f. QA guide specifications
- g. Messaging Scott D. Article, videos on ETF web page
- h. Outreach Jerry Geib -reach out to AEMA, ARRA, ISSA, PPP, NACE, etc.
- i. Training from Stormy and Travis.
- j. Training on the ETF web page. Travis and Larry T went to AK for training session based on Best Practices documents.
- k. Demonstration Projects- Larry T. How to understand that they were successful projects. Send plans and specs to Larry T. Project liaisons to get project/construction details and data.
- l. Make two-page brochures for each project, Bobby Betsold made a draft.

- m. The issues of the invitees to demo projects was brought up. This needs urgent attention as projects are moving along, and invitational travel arrangements must be made asap.

6) Moving Forward and Subcommittee Expectations -Franco

- c. Colin Franco will be stepping away from leading this group from the DOT side next year, 2023. Kelly Morse from ILDOT will be the new co-chair of the ETF.
- d. Cement effects on micro surfacing testing.
- e. Possible transfer of ISSA TBs to AASHTO standards. ACTION ITEM Larry T.
- f. NCHRP 10-124 chip seal embedment, needs panel members – coordinate with Colin.

11:45 AM Adjourn Meeting

7) Additional information:

- a. Action item from last meeting that we did not get to at this meeting.
Have an AASHTO NTPEP staff member give an update on the program and work plans for asphalt.
- b. Rejuvenators; Brief update from A. Vargas: Rejuvenator Study, still in early stages: Looking at specs, safety, testing. Looking at rejuvenators for emulsions for spray on applications.
The PI is Raquel Moraes with NCAT.
- c. There was a sense from (Subcommittee) breakout participants that more time was needed for this activity or that breakout is assigned to the sub committees only and anyone not in a subcommittee gets randomly assigned to one during the in-person meetings.

8) Topics for next meeting:

- a. Traffic striping on pavement preservation. Best practices for striping different treatments?
- b. Discuss changes to Cement Types for Micro surfacing test.
- c. Emulsions as a binder for High Friction Surface Course (HFSC).

9) Action Items:

- a. Larry Tompkins ISSA Technical Bulletins to AASHTO Stds?
- b. Follow up with development of NCPP training and certification program for all treatments. Bouzid will start a task force for this effort.
- c. Send Construction Guides and QA guides developed and reviewed by subcommittees onto AASHTO COMP for discussion at Annual meeting.

Meeting Minutes by -Ben Sade (AASHTO)