



SUBCOMMITTEE ON MATERIALS
100th Annual Meeting – Minneapolis, Minnesota
Wednesday, July 30, 2014
8:00 a.m. – 11:00 a.m. CDT

TECHNICAL SECTION (TS) 2c
ASPHALT-AGGREGATE MIXTURES

- I. **Call to Order and Opening Remarks**
 - A. Introduction of vice-chair, Matthew Corrigan, FHWA
- II. **Roll Call**
 - A. Signify attendance on sign-in sheet
- III. **Approval of TS 2c Minutes from Mid-Year Web Meeting (March 20, 2014) – ATTACHMENT # 1**
 - A. Motion to approve minutes by (LA). Seconded by (OR). Motion passes.
- IV. **Old Business**
 - A. 2013 SOM ballot items
 1. AASHTO R 47, *Reducing Samples of Hot Mix Asphalt (HMA) to Testing Size*
 2. AASHTO T 30, *Mechanical Analysis of Extracted Aggregate*
 - a. Haleh Azari (AAPRL), Allen Myers (KY), and Tim Ramirez (PA) will revise standard for ballot after AAPRL study is published.
 1. The report has been published and gave some recommendations for T30. The percent passing needs to be checked for every sieve, not just the #200. The differences need to be compared. The variability from a mechanical wash is lower than the manual wash. There is significance statistical difference between a mechanical wash and a manual wash, however, no practical difference. AI: The changes will be incorporated into T30 by PA and KY and will be ready for the concurrent ballot in the fall. Motioned by (MN), seconded by (DC). Motion passes.
 3. AASHTO T 164, *Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA)*
 4. AASHTO T 269, *Percent Air Voids in Compacted Dense and Open Asphalt Mixtures*
 5. AASHTO T 287, *Asphalt Binder Content of Asphalt Mixtures by the Nuclear Method*
 6. AASHTO T 305, *Determination of Draindown Characteristics in Uncompacted Asphalt Mixtures*
 7. AASHTO T 319, *Quantitative Extraction and Recovery of Asphalt Binder from Asphalt Mixtures*
 - a. WAQTC will revise standard for ballot with improved definition for “constant mass” – ATTACHMENT # 2
 2. Suggestions from 3 states were proposed to improve the language. No negatives were received, but this is a chance to improve. AI: This new wording will be on the concurrent ballot in the fall. Motion by (OR), seconded by (MT). Motion passes.
 8. AASHTO T 324, *Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)*
These were the items that were on the ballot last year. All of these passed and were published.
 - B. 2014 TS 2c ballots
 1. Ballot # 1 (May-June 2014)
 - a. Proposed provisional method: AASHTO TP XYZ-01, *Determining the Interlayer Shear Strength of Asphalt Pavement Layers*
 - i. Ballot results – 27 affirmative/0 negative/12 not returned

- ii. Comments from Alabama, AMRL, Arizona, Arkansas, FHWA, Kansas, Mississippi, New Hampshire, Tennessee, Virginia, and Washington – ATTACHMENT # 3
 - a. Received many good comments that will be incorporated if the standard ever becomes a provisional.
 - b. Proposed provisional method: AASHTO TP XYZ-02, *Determining the Tack Coat Quality of Asphalt Pavement in the Field or Laboratory*
 - i. Ballot results – 25 affirmative/2 negative/12 not returned
 - ii. Negative votes from Arizona and Mississippi
 - iii. Comments from AMRL, Arizona, FHWA, Georgia, Kansas, Mississippi, New Hampshire, Tennessee, Virginia, and Washington – ATTACHMENT # 3
- Negatives were found persuasive and (LA) took on the task of improving this standard. The recommendations for changes to the provisional have been published. The negatives have been addressed. Motion to send both of the previous standards to the full committee to be approved as provisional standards. Motion by (MS), second by (MS). Motion passes.
- 2. Ballot # 2 (June-July 2014)
 - a. Reconfirmation: AASHTO T 308-10, *Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method*
 - i. Ballot results
 - ii. Comments from Pennsylvania
 - b. This standard is reconfirmed.
- C. Task force reports
- 1. Task Force 2c-2008-02
 - a. Tom Harman (FHWA), Rick Kreider (KS), and Mike Rafalowski (FHWA)
 - b. Provide recommendations for amplitude and frequency for mechanical agitation devices in AASHTO T 209, *Theoretical Maximum Specific Gravity (G_{mm}) and Density of Hot Mix Asphalt (HMA)*
 - c. Web meeting with Haleh Azari (AAPRL) on July 8, 2014, to discuss research findings
 - 3. The task force will be given an opportunity to review the research before reporting. The vibro-deairer does not do the job unless the material is also agitated. A video is shown demonstrating this effect. The frequency of the agitation must be constantly adjusted to keep the material from locking up. It is requested that this issue be researched by Haleh Azari(AAPRL). It is recommended that a comparison be made to the other procedures that are included in the standard. AI: Alan will organize a conference call in the next few weeks to determine what actions will be taken with this task force.
 - 2. Task Force 2c-2008-06
 - a. Rick Bradbury (ME)-chair, Georgene Geary (GA), Illinois, Bryce Simons (NM), and Ron Walker (IN)
 - b. Consider inclusion of additional options for quartering procedure in AASHTO R 47, *Reducing Samples of Hot Mix Asphalt (HMA) to Testing Size*
 - 4. Several ideas have been sent in and several alternatives have been looked at, but no suggestions have been made to change the standard at this time. The task force will continue to look into the issue.
 - 3. Task Force 2c-2010-01
 - a. Haleh Azari (AAPRL), Jim Bibler (Gilson Company), Matt Corrigan (FHWA), and Washington-chair
 - b. Incorporate comments from 2009 SOM ballot into AASHTO TP 82, *Bulk Specific Gravity of Compacted Bituminous Mixtures Using Water Displacement Measured by Pressure Sensor*. Provide more details on water displacement measurement equipment.
 - 5. Matt Corrigan has taken over as chair of this task force. There is nothing to report on at this time.
 - 4. Task Force 2c-2010-02
 - a. Bill Bailey (VA), John Bukowski (FHWA), John D'Angelo (consultant), Georgene Geary (GA)-chair, Mike Santi (ID), Ron Walker (IN), and Washington

- b. Consider expanded usage of AASHTO T 331, *Bulk Specific Gravity (G_{mb}) and Density of Compacted Hot Mix Asphalt (HMA) Using Automatic Vacuum Sealing Method*, in applicable standards
- 6. The recommendation came out and will affect many different samples. The original approach was to seek out all of the standards that would be affected and recommend changes. This turned out to be too much. The task force recommendation is to encourage the states to read the brief and determine what the appropriate action should be for their own state. ASTM will be adding an option of using a 1% threshold to require the use of T331. It is also recommended that even if the 1% is not written into the standards, it is the prerogative of the States to put this requirement into their specification. **AI: Allen Myers will take a look at the recommendations and determine if the task force needs to be sunset.**
- 5. Task Force 2c-2012-01
 - a. Chris Abadie (LA), Scott Andrus (UT)-chair, Colorado, Matt Corrigan (FHWA), Darren Hazlett (TX), Illinois, Montana, Tim Ramirez (PA)
 - b. Address negative votes and comments from 2010 SOM ballot for AASHTO T 324, *Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)*
 - c. Incorporation of APA Jr.
 - d. NCHRP 20-7 study
 - e. Focus on equipment requirements and specimen fabrication
 - 7. The recommendation is to keep the task force together while the NCHRP study is ongoing. (UT) gave an update on what the goals and focus of the NCHRP study will be. **AI: The chair of the task force will put together a conference call to discuss the issue with specimen preparation. They will report on this at the next meeting.**

V. New Business

- A. Research Proposals
 - i. One research proposal was received concerning T209. (OK) proposes a study to look at the triggers, and to look at removing some of the subjectivity involved with the the SSD procedure. It is recommended that this be a 20-7 study. A question is asked about whether this is being run on cores or on loose mix. (OK) confirms that they are only running T209 on loose mix. It is recommended that the procedure be looked at concerning running T209 on cores. Motion to send this in as a 20-7 by (OR), second by (ID). Motion passes. VA votes negative with concerns about the localized nature of the problem.
- B. AMRL/CCRL Issues
 - i. AMRL will be sending in their recommendations in the fall.
- C. NCHRP Issues
 - i. NCHRP has over 10 projects on the way. A very limited number of submittals were received last year. Deadline for submittals is September 15th.
- D. Correspondence, calls, meetings/ Presentation by Industry
 - 1. WAQTC-suggested change to AASHTO T 30 – ATTACHMENT # 4
 - i. This recommendation is to include 12 inch sieves in the chart and to include the sieve overload information into the standard. Motion to include this on a concurrent ballot in the fall by (OR) second by (PA). It is suggested that the changes be looked at before this is sent to ballot. Motion passes.
 - 2. AK-suggested change to AASHTO T 209 – ATTACHMENT # 5
 - ii. A change to figure 1 is recommended. It modernizes the figure and adds more options for those with an oil pump. WAQTC recommends a change to the bleeder valve label. (AK) has no objection. It is also recommended that other setups are included, possibly in an annex. **AI: Allen Myers will consider this as an editorial error and report back to the committee.**
 - 3. WAQTC-suggested change to AASHTO T 209 – ATTACHMENT # 6
 - iii. Mostly editorial changes, but also some major changes as well. These include calculation changes, thermometer changes, water bath temperature requirements, and an attempt to bring this standard to the new template format. It is also recommended

to include a requirement to standardize the manometer in addition to the motion to accept the proposed changes and to include manometers in the standardization portion. Motion by (PA), seconded by (AK). It is recommended to include a description in the ballot to ensure states understand the changes. Motion passes.

4. WAQTC-suggested change to AASHTO T 329 – ATTACHMENT # 7
 - iv. A provision is included to ensure paper is dry before use when it is used to line a sample container. Changes are also made to the formula. It is recommended that the “dry paper” section be included as a note, since it is difficult to determine what is exactly “dry”. It is also suggested that, if moisture is suspected, the paper be tared with the pan before the sample is added to eliminate any change in paper weight from affecting the sample. Motion to consider the comments, revise the wording accordingly, and send the proposed changes to concurrent ballot by (OR). Seconded by (MD). Motion carries.
5. Presentation by Delmar Salomon, Pavement Preservation Systems
 - a. Using infrared spectroscopy as non-destructive procedure to measure oxidation in RAP
 - v. Oxidation is a major factor of HMA pavement deformation and there is a need for process monitoring of oxidation in the field. SHRP 2 has advanced in field applications of portable FT-IR. They are trying to develop a standard practice for using a portable FR-IR to monitor oxidation of HMA.
 - vi. It is agreed that this should be put forward as a provisional test method. AI: Delmar Solomon will send Allen Myers a copy of the standard practice and it will be put forward to be a provisional standard.
- E. Proposed New Standards
 1. WAQTC proposals
 - a. AASHTO T XX (TM 8), *In-Place Density of Bituminous Mixes by Nuclear Methods* – ATTACHMENT # 8
 - b. AASHTO T XX (TM 11), *Sampling Hot-Mix Asphalt (HMA) After Compaction (Obtaining Cores)* – ATTACHMENT # 9
 - i. Motion to send TM 8 and TM 11 to concurrent ballot to become provisional test methods by (OR), seconded by (OK). Recommended to change the title from HMA to “Asphalt Mixtures”. Motion passes
- F. Proposed New Task Forces
 - i. None
- G. Standards Requiring Reconfirmation or Extension
 1. AASHTO M 17-11, *Mineral Filler for Bituminous Paving Mixtures*
 2. AASHTO R 59-11, *Recovery of Asphalt Binder from Solution by Absorbent Method*
 3. AASHTO T 37-07 (2011), *Sieve Analysis of Mineral Filler for Hot Mix Asphalt (HMA)*
 4. AASHTO T 110-03 (2011), *Moisture or Volatile Distillates in Hot Mix Asphalt (HMA)*
 5. AASHTO T 168-03 (2011), *Sampling Bituminous Paving Mixtures*
 6. AASHTO T 195-11, *Determining Degree of Particle Coating of Asphalt Mixtures*
 7. AASHTO TP 72-08 (2013), *Quantitative Determination of the Percentage of Lime in Hot Mix Asphalt (HMA)*, is due for one-year extension by SOM
- H. SOM Ballot Items (including any ASTM changes)
 - i. None

VI. Open Discussion

- A. No items brought

VII. Adjourn

- A. Motion to adjourn by (CO). Seconded by (UT). Motion passes. Meeting adjourned.

AASHTO Subcommittee on Materials
Technical Section 2c - Asphalt-Aggregate Mixtures

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