DATE: August 30, 2012

TO: Region Engineers
Region Associate Operations Engineers
Region Construction Engineers
TSC Managers
TSC Construction Engineers

FROM: Gregory C. Johnson, P.E.
Chief Operations Officer

Randy R. Van Portfliet, P.E.
Bureau Director of Field Services

SUBJECT: Bureau of Highway Instructional Memorandum 2012-08
Michigan Test Method 319, Determination of Asphalt Content from Asphalt Paving Mixtures by the Ignition Method and the Contractor’s Responsibilities for the Establishment of Ignition Oven Correction Factors

The referenced test method has been modified to more accurately state the testing procedures and to promote uniformity during the processes. The revised test method (attached) is to be implemented for the 2012 construction season and will be incorporated into the MDOT Michigan Test Methods when this publication is updated later this year.

The referenced Contractor’s Responsibilities for the Establishment of Ignition Oven Correction Factors is a new document which describes the establishment of the correction factor when the Contractor chooses Method 1 for determining “Composition of the Mixture” in accordance with Frequently Used Special Provision 12SP501(U) or 12SP501(V). This procedure (attached) is to be implemented for the 2012 construction season and will be incorporated into the Hot Mix Asphalt Production Manual when this publication is updated later this year.

The revised test method and correction factor procedure are the result of a coordinated review effort with MDOT, FHWA, and industry testing personnel. It is recommended that individuals performing this test review the subject procedure and test method thoroughly both prior to and during the testing process to become familiar with the changes.

Please refer all questions regarding these modifications to the Construction Field Services Hot Mix Asphalt Operations Area or to John Barak, Hot Mix Asphalt Engineer, at 517-322-4967 or BarakJ@michigan.gov.
FHWA Approval: 08/21/2012

Attachment

Index: Hot Mix Asphalt

cc: CFS Division Staff ACM
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    J. Gutting MAA
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MICHIGAN TEST METHODS

FOR

DETERMINATION OF ASPHALT CONTENT

FROM ASPHALT PAVING MIXTURES BY THEIGNITION METHOD

All aspects of the test procedure will be covered by the latest version of the AASHTO T-308: Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method except as modified below:

3.2 There will be no correction for moisture.

4.1 Aggregate obtained by this test method may be used for gradation analysis according to ASTM D 5444 and Crushed particle content according to MTM 117.

6.1 Obtain QC and QA Samples in accordance with MTM 324 or MTM 313 (Sampling HMA Loose Mix from Mini-stockpile).

6.2 Quarter in accordance with HMA Sample Reduction procedure as outline in the HMA Production Manual.

6.4 The size of the test specimen shall be governed by the nominal-maximum aggregate size of the specified HMA Superpave mixture and shall conform to the mass requirement shown in Table 1.

A1.1 Change the 5 percent to 10 percent. Changes in RAP percentage greater than 10 percent and new mix design also require a new correction factor.

A1.1 Change the 5 percent to 10 percent. Any changes greater than 10 percent in stockpiled aggregate proportions shall require a new correction factor.

A2.1 Add Note A. Include other additives that may be required by the JMF.
Contractor’s Responsibilities for the Establishment of Ignition Oven Correction Factors

When the Contractor choose Method 1 for determining “Composition of the Mixture” in accordance with Frequently Used Special Provision 12SP501(U) or 12SP501(V) the following will be the procedure for the establishment of the correction factor.

1. The Contractor will provide the Engineer with the QC oven correction factor at the pre-production meeting or 14 calendar days prior to production, whichever is longer. The correction factor will be determined in accordance with MTM 319. The contractor will need to submit FHWA Form 1648 (Rev. 01-11), found at: [http://www.cflhd.gov/resources/materials/documents/1648_v4.pdf](http://www.cflhd.gov/resources/materials/documents/1648_v4.pdf) with the submittal of any correction factor.

2. The Contractor will provide enough sample material in order for MDOT to meet the requirements of MTM 319 in determining a correction factor for one Region QA Acceptance and Acceptance Laboratory oven and one Central Dispute Resolution Laboratory oven. This will include eight samples for each correction factor determination per mix design; four samples for QA Acceptance and four samples for Dispute Resolution and one blank sample (aggregate only) batched at the JMF for the corresponding correction factor. These eight mix samples and one blank sample constitute a Correction Factor Sample. These samples must be submitted in either plastic cylinder molds or cardboard release boxes. In those instances where additional samples may be required to meet the requirements of A2.8 and A2.8.1 of AASTHO 308, the contractor will supply additional samples. Initial samples will be provided to the Engineer 14 calendar days prior to HMA production. Samples shall be delivered in clean/new 6 inch concrete cylinder molds. The Region QA Acceptance Laboratory will determine the correction factors within seven calendar days.

3. When new correction factor samples are required for JMF changes or changes in gradation as required by MTM 319 the Contractor will provide the samples to the Engineer at the time of request for the JMF change or new mix design. The Engineer will determine the new correction factors within three work days of the Region QA Acceptance Laboratory receiving the samples.

4. As noted in AASHTO 308-10, “Correction factors must be determined before any acceptance testing is performed”.

5. The QA Acceptance Laboratory, QC Laboratory, and the Central Dispute Resolution Laboratory will note the specific Ignition Oven used in determining the correction factor and will use the same noted oven for all testing of QA, QC and Dispute Resolution samples for the corresponding mix.
6. Correction factors are Ignition Oven specific. The same mix design being tested by a different oven or laboratory will require another correction factor per items one and two above.

7. If the Region QA Acceptance Laboratory has operational needs to test using a different ignition oven the Contractor must provide additional correction factor samples or the Contractor may select to have testing changed to Method 2 for determining AC content.

FLH Addendum to AASHTO 308 – Standard Method of Test for Correction Factors for Hot Mix Asphalt (HMA) Containing Recycled Asphalt Pavement (RAP) by the Ignition Method can be located online at the following link:


A copy of the AASHTO T308 procedure can be purchased online at the following link: