HOLA!

PA Asphalt Pavement Association
January 27, 2016

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AMRL Manager
Standard Special Provision which modifies Pub 408, Section 409 to include Department Local Acceptance and Payment by pure Percent Within Tolerance
The Relevant Details

(c) Bituminous Mixing Plant. Section 409.3(c). Add the following subsection:

3. Laboratory Testing Facility. For testing of LA samples by the Department, identify a laboratory testing facility where the local testing is to be performed. Identify either the laboratory located at the asphalt mixture production plant or where the plant production mixture is being tested for QC if a laboratory does not exist at the production plant. Identify a laboratory testing facility which has demonstrated testing proficiency through an AASHTO Materials Reference Laboratory (AMRL) On-Site Laboratory Assessment performed within the last 2 years prior to the start of LA sample testing. The AMRL On-Site Laboratory Assessment must have been completed on any and all equipment proposed for utilization by the Department. The Department may consider other testing proficiency qualification processes, but only under extreme circumstances and only when an AMRL On-Site Laboratory Assessment cannot be performed.
Questions

• What is an on-site laboratory assessment?
• Where does it occur?
• How often?
• Who conducts the assessment?
• How long will it take?
Questions

• What happens after the assessment?
• How can we prepare?
• How can we sign up?
• How much will it cost?
Who is AMRL?

• Part of AASHTO’s Engineering and Technical Services Division

• Established in 1965

• Reports to the AASHTO Highway Subcommittee on Materials (SOM)

• Primary vision is to be the center for promoting quality and achievement of excellence in materials testing
On-Site Laboratory Assessments

Laboratory Assessment Program

• On-site visit by AMRL staff to testing laboratories
• Complete review of testing procedures, equipment, and quality management system
• About 2,000 laboratories enrolled in the program
On-Site Laboratory Assessments

Laboratory Assessment Program

- A detailed review of each test method
- Equipment evaluated using AMRL’s calibrated measuring equipment
A Detailed Review of Apparatus and Procedures

4. Sample Preparation
   (a) Mixture warmed in an oven at 110 ± 3°C (230 ± 9°F) until it can be handled if necessary? 
   (b) Sample not warmed in oven for extended period of time? 
   (c) Particles of mixture separated with spatula or trowel? 
   (d) Sample obtained by reducing a larger sample? 
   (e) Sample mass at least as much as indicated on table below? 
       - 1200 g for No. 4? 
       - 1200 g for 3/8 in? 
       - 1500 g for 1/2 in? 
       - 2000 g for 3/4 in? 
   (f) Specimen mass not more than 200 g greater than the minimum recommended mass? 
   (g) Sample divided into suitable increments and tested if necessary? 

5. Ignition Procedure by Method A
   (a) Convection-type furnace preheated to 538°C (1000°F) or the correction 
       factor temperature? 
   (b) Convection-type furnace, temperature recorded prior to test (can be automatic)? 
   (c) Sample dried to constant mass at 105 ± 5°C (221 ± 9°F)? 
   (d) Test specimen for moisture determination obtained if necessary and moisture content 
       determined according to (T110)? 
   (e) Basket(s) placed in catch pan and weighed with guards in place? 
   (f) Sample evenly distributed in the basket, material kept away from edges and leveled? 
   (g) Total mass of the sample, basket, catch pan and basket guards recorded? 
   (h) Initial mass of the specimen calculated? 
   (i) Initial mass entered into the furnace controller and verified? 
   (j) Baskets placed in the furnace and chamber door closed?
Where? How often? Who?

• **Where?** Assessments occur at your laboratory (plant or QC lab).

• **How often will assessments occur?** Every 2 years - we interpret that as every 24 months.

• **Who runs the tests?** Your technician(s). Not us, not PennDOT.
Which tests?

- **Either** PTM 702 (*Quantitative Extraction of Bitumen from Bituminous Paving Mixtures*) and PTM 739 (*Sieve Analysis of Extracted Aggregate*) or PTM 757 (*Determination of Asphalt Content and Gradation of Bituminous Mixtures by the Ignition Method*) and AASHTO T 30 (*Mechanical Analysis of Extracted Aggregate*);
- PTM 715 (*Determination of Bulk Specific Gravity of Compacted Bituminous Mixtures*);
- PTM 716 (*Determination of Bulk Specific Gravity of Compacted Bituminous Mixtures That Absorb More Than 3 Percent Water by Volume*);
- PTM T209m (*Theoretical Maximum Specific Gravity (Gmm) of Hot Mix Asphalt*); and
- AASHTO R 47 (*Reducing Samples of Hot Mix Asphalt to Testing Size*).
How long will that take?

• ½ to 1 day.
• We will also examine balances, sieves, thermometers, etc.
"We enjoyed tremendously her visit. Obviously, we were a tad jittery, but she was very clear in what she required and objective and fair in her expectations, and that put us at ease after the first hour of the assessment. We took advantage of her knowledge and, as with every AMRL visit, we learned some new things and in a couple of instances how to do better what we thought were doing perfectly. Did I mention she was nice and courteous, with just the perfect balance of friendliness and professionalism?"
What can we expect from your assessors?

“He was very knowledgeable of the standards and procedures and communicated very clearly all findings from the assessment. He really went above and beyond to answer questions, even taking time with questions about tests we weren't being evaluated in, so we would be prepared for our next assessment.”
What happens after the assessment?

You will be provided with a detailed report which identifies any nonconformities found during the assessment.
What happens after the assessment?

You will need to provide written corrective action to AMRL.

"Root cause: STUPIDITY" *

"I know what happened too...it don't take no moron to mix concrete." *

"The technician has been instructed to practice counting to 25 with his first-grade children." *
What happens after the assessment?

After everything is resolved AMRL will provide a summary report to PennDOT.
How do we get started?

1) You need to “Register Your Laboratory” at the AMRL website to create an online account.
Getting Started

2) Click on “Request AMRL Services” button.
3) Click on “Register Your Laboratory With AMRL” button.
Getting Started

4) Complete the Information Request form and submit.

To avoid duplication – If your lab is currently in our system and moves to a new location, please DO NOT create a new lab location. Please contact us to update your record! Thank you!

Information Request

I would like to register my laboratory for online access. (AMRL will respond with an access code, passkey and directions to register.)

Lab Name: 
Address 1: 
Address 2: 
City: 
State: 
Zip: 
Contact Name: 
Title: 
Phone: 
Fax: 
E-mail: 
Comments: 

Submit
5) Click on “Request a Laboratory Assessment” button.
6) We will contact you to schedule the assessment.
How can we prepare?

- Have material available to test.
- Review the “Asphalt Mixture Assessment Prep” information.
### How can we prepare?

<table>
<thead>
<tr>
<th>State</th>
<th>Hot Mix Assessment Preparation - Other Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTM 702</td>
<td>Pre-heat a hot-mix sample and prepare to demonstrate the full extraction process and mineral matter determination on all solvent extract. Mineral matter determination can be from a previously obtained sample if the lab retains it in a sealed container and records all data.</td>
</tr>
<tr>
<td>PTM 715 PTM 716</td>
<td>Have a dry, compacted, or cored specimen at room temperature.</td>
</tr>
<tr>
<td>PTM 739</td>
<td>Prepare a sample prior to the assessment or retain the sample completed during assessment demonstration. If a previously obtained sample is used, assessors will expect all masses to be recorded for the various stages of the test.</td>
</tr>
<tr>
<td>PTM 757</td>
<td>Have a dry pre-mixed asphalt sample ready to be weighed into the baskets and the oven pre-heated to test temperature.</td>
</tr>
<tr>
<td>PTM T209m</td>
<td>Have a sample ready to be placed in the vacuum bowl. Be able to demonstrate the sample preparation procedures, the vacuuming procedure, the weighing in water or weighing in air procedure, and be capable of completing all calculations at the conclusion of testing.</td>
</tr>
<tr>
<td>TEX-208-F</td>
<td>Prepare to mix a sample and perform the mixing procedure and compaction of the specimen. If the laboratory does not mix samples in-house, the sample should be heated to compaction temperature. Prepare stabilometer for testing and calibration.</td>
</tr>
</tbody>
</table>
How much will this cost?

- It depends...
  - Cost for laboratory assessment
  - Cost for reviewing corrective action
AASHTO Accreditation Program

- Utilizes data from assessment and proficiency sample programs
- Largest of its kind - over 1,800 laboratories currently accredited
Basic Requirements for AASHTO Accreditation

**Participate in PSP**
- Obtain Good Ratings on Proficiency Samples
- Submit Corrective Action for Poor Results

**Participate in LAP**
- Have an On-Site Assessment Approximately Every 2 Years
- Submit Corrective Action for Nonconformities

**Quality System**
- Maintain a Quality Management System Compliant with AASHTO R18
- Compliance Reviewed During On-Site Assessment
AMRL In Focus

- Electronic newsletter sent out via email twice a year.

- Also available online at www.amrl.net

- The focus is on helpful information of a technical nature.

- Subscribe by sending an email to subscribe@amrl.net
Questions?

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