

QC PLAN SUBMITTALS

TROY LEHIGH OCTOBER 20, 2022

2022 IN REVIEW

- Improved QC Plan submittals
- 20 submitted prior to deadline, 9 submitted after deadline, 3 not submitted at all.
- Continuing issues persist: Lack of response to requested QC plan revisions
- Three suppliers have been removed from Bulletin 15 for failing to submit QC plans or ignoring requests for revisions



QC PLANS

- Submit Annually in 1st quarter of calendar year
- Follow Pub 408 and AASHTO R 77
- Have QC Plans available at all of your facilities
- Update QC Plans when key personnel change and submit new version to LTS



REQUIREMENTS

- Pub 408
- Bulletin 25
- AASHTO R 77



ISSUES

- Missing required language from R 77
- Length (too long/too short)
- Poorly written
- Convoluted/Contradictory/Redundant
- DUDE, WHY ARE YOU SHOUTING?



QC PLAN LENGTH

- Average QC is 15 pages
- Shortest is 5 pages
- Longest is 67 pages



BEST PRACTICE

Follow AASHTO R 77 Section 9 Supplier Quality Control Plan Minimum Requirements.

- Recommend following the same format and order. No need to rewrite it in any other way.



TESTING

PennDOT Pub 408, Section 702.1(b)1.:

“Obtain a verification sample from each batch and test according to Bulletin 25.”

- Suppliers not performing Elastic Recovery test on polymer modified samples
- Test performed at different test temperatures



AASHTO R 77

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9.1.4. The quality control tests to be performed on each emulsified asphalt; and

9.1.5. Name and location of all laboratories performing the quality control tests on the emulsified asphalt that is shipped



AASHTO R 77

9.2 The supplier's quality control plan shall include a declaration stating that if a test result indicates that a shipment of emulsified asphalt is not in compliance with the purchase specifications, the supplier shall,

(1) Immediately notify the agency of the shipment in question and immediately notify the receiver of the shipment in question.

(2) Identify the material

(3) Cease shipment until the material complies with the specification;

(4) Notify the agency prior to resuming shipment; and

(5) Implement any mutually agreed-upon procedures for the disposition of the material. In the event a mutual agreement is not obtained, the specifying agency shall have the final authority in the decision on specification compliance



AASHTO R 77

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- Notify the receiver immediately, do not wait for PennDOT to instruct you to do so.



AASHTO R 77

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- This identification is for the failing material and where it was shipped. It should include the batch or lot numbers, tank numbers, Bill of Lading numbers, shipping dates, etc. Anything that identifies the failing material and indicates where it went.



AASHTO R 77

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- This is not the section to describe how you establish lot or batch numbers during production.



AASHTO R 77

- 9.3 The supplier's quality control plan shall describe the method and frequency for initial testing, quality control testing, and specification compliance testing.



AASHTO R 77

9.3.1. Initial Testing—For each grade of emulsified asphalt to be supplied, specification compliance testing (complete testing per either M 140, M 208, or M 316) shall be performed for at least three consecutive lots. A lot may be a fixed batch of material or a specified quantity in a continuous operation (see Note 3). The supplier and the agency shall agree on the lot size. The agency must approve any change to a lot size.

Note 3—If a batch operation is used to produce the emulsified asphalt, a tank may be defined as a lot. The lot size would be the amount of material batched into the tank. If a continuous process (inline blending or a shipment from “live” tanks) is used to manufacture the emulsified asphalt, the lot size may be obtained at random during the production for continuous operations. The lot size shall depend on the production method used and the quantity of the emulsified asphalt produced



AASHTO R 77

9.3.2 Reduced Frequency of Testing for Specification Compliance— If approved by the agency, the frequency of testing for specification compliance may be decreased if the individual M 140, M 208, or M 316 test result for every sample of the initial testing series is within specification by at least the tolerance of the test method for each of the required test methods. With the approval of the agency, the frequency of testing may be further reduced as long as the individual test results continue to meet the tolerance criterion. If the tolerance criterion is not met, every lot will continue to be tested for the individual M 140, M 208, or M 316 property until three consecutive lots comply with the tolerance criterion



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Reduced testing has not been approved by the agency (PennDOT). The minimum frequency currently required by PennDOT is every lot or batch.



R 77 REDUCED TESTING

Reduced Testing Language in R 77:

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If reduced testing is allowed in the future, you can expect this language to be included. This will probably include LTS testing.



R 77 REDUCED TESTING

Examples:

- Residue by Distillation – Tolerance is 1.0% - if test result is within 1.0% of the specification minimum, then test the next three lots.
- Penetration – Tolerance is 15 – if test result is within 15 of specification minimum or maximum, then test the next three lots.



AASHTO R 77

9.4 The supplier's quality control plan shall include a statement indicating that the supplier will prepare monthly summary reports for all quality control and specification compliance tests performed during that period and will submit them to the agency on request.

- My suggested language:
- Monthly summary reports will be prepared for all quality control and specification compliance tests performed and will be submitted to the agency on request.



AASHTO R 77

- The supplier's quality control plan shall provide an outline of the **procedure** to be followed for checking transport vehicles before loading them to prevent contamination of shipments. The outline shall include a statement indicating that the transport vehicle inspection report, signed by the responsible inspector, shall be maintained in the supplier's records and will be made available to the agency on request.



QC PLANS

Items that are not necessary:

- Job descriptions or qualifications
- Employee bios or previous experience
- Description of staff competency checks or training programs
- Equipment inventory and maintenance procedures
- Copy and paste of entire test methods



OTHER ISSUES

- Not reporting oil distillate on Certificates of Analysis. Residue by distillation is required to be performed. Oil distillate should be recorded as part of this test.
- Bill of Lading that does not meet Pub 408 requirements
- TR-447 forms – email me for resupply.



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