

Kentucky Method 64-445-~~0405~~

Dated ~~3/11/04~~12/28/04

Supersedes KM 64-445-~~0304~~

Dated ~~1/8/03~~3/11/04

KENTUCKY TRANSPORTATION CABINET (KYTC) APPROVED SUPPLIER CERTIFICATION PROGRAM FOR EMULSIFIED ASPHALTS (EASC)

1. SCOPE:

- 1.1. According to the Department's *Standard Specifications for Road and Bridge Construction*, Section 806, emulsified asphalts (including polymer asphalt emulsions and PrimerL) may only be furnished by suppliers included in the KYTC EASC program. -The KYTC EASC program permits the manufacture and shipment of emulsified asphalts within the framework of a quality-control plan (QCP) without complete pretesting of the emulsified asphalt by the Department's Division of Materials. This EASC program follows the requirements outlined in AASHTO R26, *Standard Recommended Practice for Certifying Suppliers of Performance-Graded Asphalt Binders*, with modifications as found in this Kentucky Method (KM).
- 1.2 Supplier qualification: All suppliers that: 1) create or substantially change the properties of an emulsified asphalt or 2) supply material to multiple contractors are required to comply with the guidelines of the EASC program.
- 1.3 EASC approval will be specific for the supplier/terminal and will not be transferable to other sites.
- 1.4 For specialty applications, other emulsified asphalts specified for use on Department projects will be tested and approved by the Division of Materials. Maintain responsibility for full compliance testing at a frequency to be determined by the Division of Materials.

2. QUALIFICATION:

- 2.1. Laboratory requirements: In addition to AASHTO R26, AASHTO Materials Reference Laboratory (AMRL) proficiency-sample ratings of three or better on all AASHTO T59, *Testing Emulsified Asphalts*, properties are required. If a pattern of low ratings is noted by the Division of Materials, the laboratory will be unable to provide test data for supplier certification. Forward copies of the AMRL inspection report and AMRL proficiency results to the Division of Materials within one month of receipt. Satellite laboratories at terminals may be inspected by a primary laboratory that meets the above requirements. Satellite laboratories are not required to participate in the AMRL proficiency-sample-testing program.

2.2. QCP:

- 2.2.1 If any changes that affect the QCP occur, the supplier shall notify the Division of Materials immediately, and subsequently update the QCP to reflect these changes.
- 2.2.2 In addition to AASHTO R26, include instructions for the proper storage and handling of each emulsion in the plan. If the handling instructions change for a particular emulsion, notify the Division of Materials, and update the QCP.
- 2.2.3 The minimum testing frequency for emulsions is one complete AASHTO T59 analysis, including the modifications found in Section 806, every 30 days or when new material produced.

2.3. Quality-Control Testing:

- 2.3.1. Perform the minimum quality-control tests according to the Department's *Standard Specifications*, Section 806, for each type of emulsified asphalt included in the attached table.
- 2.3.2. A supplier will be qualified to ship a specific emulsified asphalt after a minimum of three production lots/batches are tested by the Division of Materials and full compliance with test specifications is indicated for each sample. If no new lot/batch is manufactured within one week of taking the first sample, the existing lot/batch may be re-tested. Do not sample these production lots/batches closer than one week apart. If two separate production lots/batches are produced within the same week, sample these lots/batches, and submit them for testing provided documentation of the new production is attached.
- 2.3.3. While a supplier is in the process of having the three production lots/batches tested, the Department will allow material to be shipped from the lot(s) in question if it has been tested and approved by the Division of Materials. In this case, the Division of Materials will supply a lot/batch number for the material.
- 2.3.4. The Department will not require compliance testing for winter months when production ceases. For suppliers continuing on the EASC program, furnish a complete set of compliance test data and one sample of material for each type of emulsified asphalt produced to the Division of Materials when shipping resumes. If the test data and sample are not received by the Division of Materials within two weeks of the resumption of shipping, the supplier shall be removed from the EASC program and will be ineligible to ship material to Department projects.

3. DOCUMENTATION:

- 3.1 Quality control tests: Submit a summary for all quality-control tests performed to the Division of Materials every two months. Maintain detailed records of all quality-control tests, inspections, and shipments for at least two years.
- 3.2 Tank certification: For each tank of material, submit to the Division of Materials a completed KYTC Materials form, TC 64-439Y, containing complete test data furnished by the supplier. The type of inspection shall be listed as "CER," and any quality-control tests performed at the terminal shall be listed under "REMARKS." Submit this form every 30 days or when new material is added to a tank.
- 3.3 Bills-of-lading: In addition to the requirements of AASHTO R26, Subsection 11.3, also include the following three items: the lot/batch number; the project number/destination of the material; and the signature of the producer's representative.

4. QUALITY ASSURANCE SAMPLING AND TESTING: Furnish split samples obtained at random, as directed by the Division of Materials, from the supplier's terminal. Ensure that the emulsified asphalt samples are representative of the material being shipped from that particular location. Submit two gallons of emulsified asphalt to the Division of Materials for each split sample. All appropriate test results, as required by Section 806, must follow from the supplier within five working days of sampling the material. Division of Materials representatives may visit any of the supplier's facilities for the purpose of obtaining split samples and/or observation of sample collection and quality-control testing.

5. NON-COMPLIANT MATERIALS:

- 5.1 Notification of non-compliance: If any information is obtained by the supplier that indicates a quantity of emulsified asphalt is not in compliance with the specification(s): 1) notify the Division of Materials immediately, by telephone and in writing, of the emulsified asphalt in question; 2) identify the material by lot number; and 3) cease shipment/use of the material. A full analysis of the material in question, as required by Section 806, indicating full compliance is required before shipping may resume. Notify the Division of Materials before resuming shipment.
- 5.2 Probation and removal from the KYTC EASC program: The Department will consider unsatisfactory material to be production lots/batches of a particular emulsified asphalt, tested either through split samples or field samples, that are not in compliance with the specification(s). Two unsatisfactory lots/batches will place a supplier on probation. Two out of three unsatisfactory production lots/batches will constitute removal from the EASC program for that emulsified asphalt. The Division of Materials will investigate the cause of non-compliance. If the non-compliance is found to be terminal-related, only the terminal will be restricted from shipping instead of the supplier.

- 5.3. Reinstatement: If a supplier is removed from the EASC program, reinstatement will be contingent upon three consecutive production lots/batches being tested by the Division of Materials and meeting the compliance specifications.
6. CONTINUED APPROVAL - Continued approval under the EASC program will be contingent upon a record of satisfactory performance as determined by the Division of Materials and documented by inclusion on the Department's List of Approved Materials.

APPROVED _____
Director
Division of Materials

DATE 3/11/0412/28/04

Kentucky Method 64-445-~~04~~05

Dated 3/11/0412/28/04

Supersedes KM 64-445-0~~4~~2

Dated 1/8/033/11/04

km44504km44505.doc

Attachment

QUALITY-CONTROL TESTS FOR EMULSIFIED ASPHALTS

Tests	SS-1H	SS-1	RS-1	RS-2	CRS-2	AE-200	HFMS-2	HFRS-2	CRS-2P	Primer L
Viscosity @ 77 °F	X	X	X			X	X			X
Viscosity @ 122 °F				X	X			X	X	
Residue by Distillation	X	X	X	X	X	X	X	X	X	
Oil Distillates					X	X			X	
Demulsibility			X	X	X			X	X	
Residue Penetration	X	X	X	X	X		X	X	X	
Particle Charge					X				X	
Float Test @ 140 60 °F						X	X	X		
Coating Test						X	X			X
Sieve	X	X	X	X	X			X	X	
Float Test @ 122 °F										X
Asphalt Content										X
Water Content										X
Storage Stability	X	X	X	X	X	X		X	X	
Ductility @ 77 °F	X	X	X	X	X		X	X		
Solubility	X	X	X	X	X	X		X	X	X
Softening Point									X	
Ductility @ 39 °F									X	

The minimum testing frequency as required by Section 806, is every 30 days, or when new material is produced, and at least once when the asphalt source changes.