

Kentucky Method 64-444-~~0405~~0506

Dated ~~12/28/04~~5/10/06

Supersedes KM 64-444-~~0405~~

Dated ~~1/9/04~~12/28/04

KENTUCKY TRANSPORTATION CABINET (KYTC)
APPROVED SUPPLIER CERTIFICATION (ASC)
PROGRAM FOR PERFORMANCE-GRADED
(PG) ASPHALT BINDERS

1. SCOPE:

- 1.1 According to the Department's *Standard Specifications for Road and Bridge Construction*, Section 806, PG asphalt binders may only be furnished by suppliers asphalt terminals included on the KYTC ASC program. The KYTC ASC program permits the manufacture and shipment of PG binders within the framework of a quality-control plan (QCP) without complete pretesting of the PG binder by the Department's Division of Materials. This ASC 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 Two conditions are excluded from this plan: 1) storage of PG binders in a dedicated tank for use at a single contractor's hot-mix asphalt (HMA) plant; ~~and 2) any change in binder grade due to the addition of recycled asphalt pavement;~~ and 3) Similarly, the addition of silicone or anti-strip additives, will not constitute the manufacturing of a new product.
- 1.3 Terminal and contractor qualification: All terminals that: 1) supply multiple HMA facilities; or 2) make/modify PG binders are required to comply with the guidelines of the ASC program. If PG binders are manufactured at a contractor's HMA plant, then the Department will require these materials to comply with the guidelines of the ASC program.
- 1.4 ASC approval will be specific for the supplier/terminal and will not be transferable to other sites.
- 1.5 ~~Specialty applications: Other~~ PG binders will conform to Section 806. Binders not covered by those specifications specified for use in Kentucky will be tested and approved by the Division of Materials on an individual basis. Maintain In these cases, the supplier will maintain responsibility for full AASHTO M320, *Performance-Graded Asphalt Binder*, compliance testing and any other testing deemed necessary by the Department, at a Testing frequency to ~~will also~~ 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 M320 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. Terminals are required to have a dynamic shear rheometer (DSR) on-site to perform ~~weekly~~ testing as required by Subsection 2.3.3-4 of this KM.

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 PG binder in the QCP. If the handling instructions change for a particular PG binder, notify the Division of Materials, and update the QCP.

2.2.3 ~~The minimum testing frequency for PG binders is one complete AASHTO M320 analysis, including the modifications found in Section 806, every 30 days or when new material is added to a tank.~~ If any discrepancies arise between the terminal's QCP and this KM, this KM will apply.

2.3 Quality Control Testing:

2.3.1 The Division of Materials will require AASHTO M320 testing, including all modifications found in Section 806 M(320+), to be performed on all PG binders.

~~2.3.12.~~ A supplier will be qualified to ship a specific PG binder after a minimum of three production ~~lots~~/batches are tested by the Division of Materials and full compliance with AASHTO M320(+) specifications is verified 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~~ it for testing provided documentation of the new production is attached. Acceptable documentation would be AASTHO M320(+) data from the new material added to the tank.

~~2.3.23.~~ 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)-batch(es)~~ 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.

~~2.3.34.~~ In addition to AASHTO R26, perform an original DSR check for the upper PG temperature for each shipping tank, when certified material is added, to verify that the resulting blend is still in compliance. If no additional material is added, perform this quality-control test at a minimum of once per week per tank. When materials from different sources are blended to produce a new material, certify the resulting blend by complete AASHTO M320(+) testing.

2.3.5 When material is pumped directly from a rail car or barge into a transport truck, obtain a sample of the material from the rail car or barge, and perform the DSR

quality-control check as required in Subsection 2.3.4. Forward the DSR test results and the AASHTO M320(+) test results supplied by the manufacturer to the Division of Materials.

2.3.4~~6~~. The Department will not require compliance testing for winter months when production ceases. For suppliers continuing on the ASC program, furnish a complete set of AASHTO M320(+) test data and one sample of material for each grade 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 ASC program and will be ineligible to ship material to Department projects.

3. DOCUMENTATION:

- 3.1 Quality control tests: Submit a summary of all AASHTO M320(+) and DSR tests to the Division of Materials a minimum of 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 to which new of material has been added, submit to Division of Materials a completed KYTC Materials form, TC 64-439Y, containing complete AASHTO M320(+) test data furnished by the supplier. The type of inspection shall be listed as "CER," and the required original DSR results ~~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. The assigned batch number will contain the last date a sample was taken for AASHTO M320(+) testing, not the date the material was introduced to the tank. This date will usually be the date sampled by the manufacturer prior to shipment to the terminal.
- 3.3 Bill-of-lading: In addition to the requirements of AASHTO R26, Subsection 11.3, also include the following four items: the ~~lot~~/batch number; the project number/destination for the material; an indication if silicone, anti-strip additive, or similar material has been incorporated into the binder; 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 PG binder samples are representative of the material being shipped from that particular location. Submit two quarts of PG binder to the Division of Materials for each split sample. AASHTO M320(+) test results from the supplier must follow within ten 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 PG binder is not in compliance with the specification(s): 1) notify the Division of Materials immediately, by telephone and in writing, of the PG binder in question; 2) identify the material by ~~lot~~-batch number; and 3) cease shipment/use of the material. A full

AASHTO M320(+) analysis of the material in question indicating full compliance is required before shipping may resume. Notify the Division of Materials before resuming shipment.

- 5.2 Probation and removal from the ASC program: The Department will consider unsatisfactory material to be production ~~lots~~/batches of a particular PG binder, tested either through split samples or field samples, that are not in compliance with the specification(s). One unsatisfactory ~~lot~~/batch will place a supplier on probation. Two out of three unsatisfactory ~~lots~~/batches will constitute removal from the ASC program for that particular PG binder. 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 ASC 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 ASC 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

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