



OHIO DEPARTMENT OF TRANSPORTATION

CENTRAL OFFICE • 1980 WEST BROAD STREET • COLUMBUS, OH 43223

JOHN R. KASICH, GOVERNOR • JERRY WRAY, DIRECTOR

May 16, 2016

Mr. Randall J. Meyer, Inspector General
Office of the Inspector General
30 East Broad Street, Suite 2940
Columbus, Ohio 43215-3414

2016 MAY 18 AM 9:44
OFFICE OF
INSPECTOR GENERAL

RE: IG File 2015-CA00003

Dear Inspector General Meyer:

Thank you for your review of the allegations that an asphalt producer was providing unapproved asphalt binder on an ODOT highway construction project. The Department has many contractors and buys from many producers across the state. It is a challenge to keep abreast of their product quality, and it is helpful for the industry to know that both your office and ours will be diligent in confirming that the taxpayers of Ohio are getting the supplies and services that they paid for. ODOT would like to offer the following in response to the recommendation found in your report.

RECOMMENDATION:

Consider assigning additional personnel to make unannounced inspections of asphalt plant operations in districts with active roadway projects.

RESPONSE:

By way of background, ODOT's Supplement 1032 (*Attached*) describes the process for an asphalt material producer/supplier to become a certified supplier. The process involves submittals of a quality control plan, test data and initial test samples. To maintain certified supplier status, the supplier participates in periodic split sample testing with the Office of Materials Management (OMM). Meaning, ODOT does randomly check samples from suppliers and they are tested by both the supplier and ODOT to verify quality.

In addition, for each highway construction project, a minimum of one PG binder sample is taken per construction year, per Job Mix Formula (aka JMF), per supplier at the asphalt mix plant. Typically we recommend this happening randomly, however, the sampling may occur more often at the start of the job simply to verify that the right product is coming out of the plant and to address any issues early.

An update to the Construction and Materials Specifications that would address the concern of establishing the source of asphalt binder materials was published in January 2016. This information may not have been available while you were conducting your investigation. ODOT now requires the material producer to keep Bill of Ladings (binder delivery tickets) on hand and for Department staff to monitor by randomly selecting Bill of Ladings and reconciling them with the materials provided. To be sure, this is not a foolproof method, but this additional check does let plants know that the Department is verifying their products in multiple ways. The Department can now look at paperwork and establish that the required

amount of binders were at the plant and that approved sources are used. The Bill of Lading information includes all information needed to verify the source as well as the binder type and quantity.

For your convenience, here is the excerpt from C&MS 403.03L:

403.03 Quality Control Program (QCP). *Create and implement a Quality Control Program (QCP) for each paving season ***. Include in the program: ****

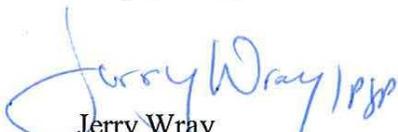
L. Procedure for ensuring asphalt binder Bills of Lading with BOL load number, binder source and grade are reviewed against running JMFs and record of review listing the above information be kept in the plant lab for the duration of the project. Means to meet the handling and storage requirements of 402.03 and asphalt binder suppliers for all asphalt binders.

Furthermore, on May 7th, 2015, ODOT's Office of Material Management advised twelve ODOT District Testing Engineers of the proposed procedure in an email which read in part:

'For ODOT QA, asphalt monitors at least once per week and at job start (or when loads are being delivered) need to validate that the correct grade AND certified source is being delivered. Do this by witnessing load delivery, obtaining a copy of that delivery Bill of Lading (that has date, grade and source) and looking up the source on the Certified Binder list on the web. Place the word 'Confirmed by and the monitor initials' on the BOL copy and attach to the monitoring records. Some districts may elect to do the above based on time of sampling which may be fine in some cases but the above frequency needs met. It is not acceptable to review the contractor QC information in place of this QA process.'

To verify that the District staff have implemented this change, the Office of Material Management performed quality assurance reviews in the summer of 2015. The QAR/TPR process confirmed that 100% of the Districts were compliant with the new process, and that the Bills of Ladings were retained. Thus, given the changes in process and the already implemented random spot-checking of the asphalt binder plants, the Department believes that it has addressed the concerns raised in your Report and Recommendation. Thank you again for your thorough review of ODOT's process and the vendors that supply our roadway construction material. We trust that the proposed plan to address your recommendations and the issues presented is satisfactory. Please contact the Department if you have any questions or concerns about this response.

Respectfully,


Jerry Wray
Director

cc: Patrick J. Piccininni, Deputy Director & Chief Legal Counsel, ODOT
Brad Jones, P.E., Deputy Director, Construction Management, ODOT

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT 1032
ASPHALT MATERIAL CERTIFICATION REQUIREMENTS**

January 15, 2016

1032.01 Scope

1032.02 Procedures and Requirements

1032.01 Scope

This supplement outlines the requirements under which producers and/or suppliers are authorized to ship asphalt materials under certification. Asphalt material shipped under certification may be used without being independently sampled and pretested by OMM.

1032.02 Procedures and Requirements

Suppliers must meet all requirements as follows.

A. The supplier will initiate a request for authorization to ship materials under certification by:

1. Submitting the supplier's Quality Control Plan (QCP) covering:
 - a. Terminal name, address, and mailing address (if different)
 - b. Revision Sheet listing all revisions made from previous QCP submitted plus a revision date on front page of QCP.
 - c. Quality Control Manager's name, address, phone number, and e-mail address
 - d. Terminal Manager's name, address, phone number, and e-mail address (if different from above)
 - e. Available testing equipment and locations
 - i. An inventory list of testing equipment including the name, model and serial number, manufacturer, and date put into service
 - ii. If you use an outside source for testing,
 1. List the company name, any accreditations they have, contact person with a phone number and e-mail address, physical address, and mailing address (if different)
 2. If they are not AMRL accredited for asphalt material testing, you must provide their available testing equipment, equipment inspection and maintenance, and employee training and experience.
 - f. Equipment inspection and maintenance
 - i. List intervals when equipment is calibrated and/or standardized as well as any checks

- ii. Must meet or exceed requirements in AASHTO R 18 Equipment Calibration, Standardization, and Maintenance Tables and specific test specifications
 - iii. List of equipment maintenance schedule
 - g. Employee training and experience
 - i. Include years of experience
 - ii. Training and certifications
 - h. Sampling Frequencies and Testing
 - i. List sampling frequencies for Quality Control and Sample Check for PG binders, emulsions, and/or cutbacks.
 - ii. List types of testing for Quality Control and Sample Check for PG binders, emulsions, and/or cutbacks
 - iii. Penetration testing for performance graded (PG) binders is not an acceptable verification test. Viscosity tube testing is not an acceptable verification test for modified PG binders.
 - i. Monthly reporting
 - i. Provide an example monthly report
 - j. Methods of verifying shipment quality at terminals (Example: How often truck scales are calibrated and by who)
 - k. Methods for notifying the Department of shipment of non-specification materials, procedures to return material to compliance with specification, and notification procedure to the Department.
 - l. Method for notifying the Department when terminal starts up and shuts down for the year
 - m. Best practices for handling and storing PG binders, emulsions, and/or cutbacks
 - n. Other methods at the refiner's discretion considered routine practice in supplier quality control.
 - o. Example Bill Of Lading.
 - p. Specify the specification warning bands to be used by technicians and QC Managers in accordance with specification requirements for all tests and give specific instructions on what actions will take place when a test falls in the warning band.
 - i. A specification warning band is a zone that requires additional action where a test result passes the specification requirement but would be considered borderline or barely passing as defined by the supplier.

Anytime a QCP is updated, provide a copy to OMM with an updated revision sheet.

2. Requesting Initial Sampling:

- a. Supplier will contact OMM requesting sampling for certification.
- b. Sampling will consist of a minimum of five samples from five sealed tanks of material to be certified. No more than two sealed tanks per visit and allow a minimum of two weeks for testing of material. Supplier must notify OMM if the seal is going to be broken.
- c. Upon approval of each sealed tank, material may be shipped to Department projects. Do not carry over approved emulsions in storage to the following year.

- d. When five consecutive passing samples are achieved, the supplier will submit a notarized letter of compliance. Other means of obtaining certification samples will be at the discretion of OMM.
 3. The supplier will submit to OMM a notarized letter of compliance stating that each grade or type of asphalt material proposed for shipment under certification will meet current Department specifications for that grade or type of material. Include:
 - a. Each grade or type of material that is to have approval for shipment under certification.
 - b. A statement that the supplier warrants the Department against costs involved in corrective action required due to inclusion in the work of non-specification asphalt material.
 - c. Signature by a representative of the supplier having legal authority to bind the company.
- B.** The supplier in requesting to ship by certification agrees to:
1. Submit a monthly summary of terminal quality control test data by asphalt grade or type for asphalt materials shipped under certification. Provide all certified material in the summary and mark “No Production” for material(s) that are not produced during that month. If the terminal is shut down for the month, a letter stating the terminal was shut down for that month will suffice.
 2. Permit periodic visits by a representative of the Department to the supplier laboratory, at any time, for the purpose of observing the testing of a sample of asphalt material by supplier personnel using their equipment, for the properties required. The Department representative will observe the sampling of a quality control sample and obtain 2 – 1 quart split portions of this sample for testing in OMM, leaving the remaining portion to be tested by the supplier laboratory. Once the sample is tested by the supplier, the supplier will e-mail results to OMM. Test results on split samples will be compared to assure reasonable correlation of testing procedures and accuracy of laboratory equipment, and that product specifications are met.
 3. Supplier will be responsible for supplying proper sampling containers for all samples taken during the Department’s visit to the terminal. Ensure sample containers are new, unused containers. Ensure labeling on containers, not lids, is correct and that the outside is wiped clean of material with a clean, dry rag after sampling.
 - a. For asphalt emulsion samples, 1 quart wide-mouth round plastic bottles.
 - b. For PG binders, 1 quart round metal friction top cans.
 - c. For cutbacks, 1 quart round metal friction top cans or small-mouth cans with screw caps.
 4. Maintain records of production control tests for a period of 3 years.
 5. Notify OMM when the terminal starts up and shuts down for the year.
 6. Ensure contact information on the Supplement 1032 Certified Asphalt Material Suppliers list is up-to-date.

7. Supplier laboratories and outside sources used for Quality Control testing must participate in Round Robin testing.
8. Supply the customer(s) a copy of the supplier's "Best practices for handling and storing PG binders, emulsions, and/or cutbacks."
9. No tolerances are given for material falling outside of specification requirements. Suppliers should adjust their formulations based on comparison with OMM's results and material specification requirements.

C. OMM will approve the supplier to ship by certification when the requirements of Section 1032.02.A have been fulfilled.

1. Certification will remain in effect indefinitely unless no production is reported for a period of two calendar years or until otherwise notified by OMM.
2. The supplier will resubmit the QCP annually by February 28th and obtain acceptance prior to shipping by certification. Provide a revision sheet outlining changes from the previous submittal. Allow two weeks for review and approval by OMM. If changes occur after acceptance, submit a revision sheet outlining changes and when changes took effect.
3. Continued approval to ship by certification will be contingent upon a record of satisfactory performance.

D. Following approval to ship by certification, the supplier is authorized to make shipments to Department projects.

1. The supplier shipping ticket will contain the following minimum information:
 - a. Name and location of the refinery or terminal.
 - b. Identification of the delivery site.
 - c. Date of shipment.
 - d. Time of shipment.
 - e. Gallons (Liters) of material in the shipment.
 - f. Grade of the asphalt binder or type of asphalt material.
 - g. Tank number or blender number from which the shipment was made.
2. Ensure a Transport Truck Inspection Certification accompanies each load certifying that the container is reasonably free of contaminants. Inspect each transport or distributor and refuse to load if it is not reasonably free of contaminants. Sign the truck inspection form. Supply the forms to transport or distributor drivers. The transport or distributor driver will fill out the transport truck certification form including their signature and the carrier's name.
3. Retain the Shipping Ticket and Transport Truck Inspection Certification at the delivery site.
4. Supplier will permit the Department representative access to those parts of the terminal engaged in the testing, storage and shipment of materials produced for Department projects.

5. The Department will conduct a program of check sampling. These samples will be used for checking material quality at the asphalt concrete mix plant. Sampling will be conducted at the frequencies listed below.
 - a. Asphalt binder See C&MS 700 Material Details
 - b. Liquid Asphalt Material. See C&MS 700 Material Details
6. Certification status of cut-back asphalt emulsions and asphalt emulsions will lapse 3 weeks after date of shipment from the producer, except that when material is to be used for mulching, Item 659, it will be considered certified for a period of one month after date of shipment from the producer. Materials which have lost certification status will be sampled and approved prior to use.

E. The supplier, per the Quality Control Plan, must notify the Department of failing material. Failure to comply with the above requirements, failure to meet specifications, or failure to immediately correct faulty material in the producer's tanks may result in removal from certification. In addition, the Department may take action under the provisions of C&MS 105.11 or 106.07.

In the event the Department obtained a quality control sample that fails specifications, certification of the product can be revoked. If a split sample fails to meet specification, the second sample will be tested. Prior to testing second sample, notification of the failing test will be given to the supplier as well as an invite to observe testing. The supplier may be requested to send the results of their split sample testing to OMM. Revoking the product certification will be based on analysis of OMM and supplier results. Revoking of the product certification will be in writing to the supplier. Recertification will be contingent upon a review of the supplier quality control program and product failure history. Section 1032.02.A will be followed for recertification. Repeat failures may result in removal from certification until the Department feels that the supplier's quality control is adequate.

The supplier can appeal a removal from certification to the Division of Construction Management Control Group which consists of the following Department personnel:

Deputy Director, Division of Construction Management
Administrator, Office of Construction Administration
Administrator, Office of Materials Management

Appeals must be in writing with supporting data and be submitted to the Administrator Office of Materials Management within 10 work days of notice of removal from certification.

F. OMM will maintain a current list of suppliers whose materials may be accepted by certification for use on Department projects.

G. Do not ship materials prior to or after removal from approval to ship by certification unless prior approved by OMM. Failure to comply will result in the supplier being completely removed from approval to ship by certification and from supplying material covered by this Supplement to Department projects for a minimum of 180 days. In addition, the Department may take action under the provisions of C&MS 105.11 or 106.07.