

ORIGINATION FORM

Date: May 7, 2012

Originator: Greg Sholar

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Specification Title: Hot Mix Asphalt - Plant Methods and Equipment

Specification Section, Article, or Subarticle Number: 320

Why does the existing language need to be changed? Continual improvement of the Specification to address Department and Industry needs.

Summary of the changes: 1. Removed process control requirement for daily aggregate moisture content determination. 2. Removed recovered viscosity testing by the Contractor for RAP stockpiles. 3. Added wording related to the process for dealing with laboratory equipment breakdowns during production. The Contractor can use another qualified laboratory for up to 72 hours. 4. Added wording to allow the use of an aggregate haul truck or other approved vehicle to be used for scale checks. Previously, only asphalt trucks were allowed.

Are these changes applicable to all Department jobs? If not, what are the restrictions?

These changes are applicable to all Department jobs.

Will these changes result in an increase or decrease in project costs? If yes, what is the estimated change in costs? No identified increases in project costs.

With who have you discussed these changes? Department and Industry staff.

What other offices will be impacted by these changes? Materials and Construction.

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? None that I am aware of.

Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? No.

Contact the State Specifications Office for assistance in completing this form.
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M E M O R A N D U M

DATE: May 29, 2012

TO: Specification Review Distribution List

FROM: Trey Tillander, State Specifications Engineer

SUBJECT: Proposed Specification: **3200202 Hot Mix Asphalt – Plant Methods and Equipment.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Greg Sholar of the State Materials Office to update the language for current Department and Industry practice.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or to my attention via e-mail at SP965TT or trey.tillander@dot.state.fl.us. Comments received after **June 27, 2012**, may not be considered. Your input is encouraged.

TT/dt
Attachment

HOT MIX ASPHALT – PLANT METHODS AND EQUIPMENT.
(REV 5-7-12)

SUBARTICLE 320-2.2 (of the Supplemental Specifications) is deleted and the following substituted:

320-2.2 Minimum Process Control Testing Requirements: Perform, as a minimum, the following activities at the testing frequencies provided in Table 320-1. QC tests used in the acceptance decision may be used to fulfill these requirements.

Table 320-1		
Asphalt Plant - Materials Testing Frequencies		
Material	Property	Minimum Testing Frequency
Aggregate	Gradation	Once per 1,000 tons of incoming aggregate
Aggregate	Moisture Content (stockpiled aggregate or combined cold feed bin)	Once per day
Asphalt Mix	Asphalt Binder Content	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Bulk Specific Gravity (G_{mb})	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Gradation	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Maximum Specific Gravity (G_{mm})	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Temperature	Each of first 5 loads, then once every 5 loads thereafter, per day per mix design.
RAP	Asphalt Binder Content	Once per 1,000 tons RAP
RAP	Gradation	Once per 1,000 tons RAP
RAP	Maximum Specific Gravity (G_{mm})	Once per 5,000 tons RAP
RAP	Recovered Viscosity	Once per 5,000 tons RAP

*If less than 100 tons of mix is produced on each of successive days of production, resulting in a cumulative quantity of greater than 100 tons, then perform the indicated test.

SUBARTICLE 320-2.4 (of the Supplemental Specifications) is deleted and the following substituted:

320-2.4 Hot Mix Asphalt Testing Laboratory Requirements: Furnish a fully equipped asphalt laboratory at the production site. The laboratory must be qualified under the

Department's Laboratory Qualification Program, as described in Section 105. In addition, the laboratory shall meet the following requirements:

1. Area - The effective working area of the laboratory shall be a minimum of 180 square feet, with a layout of which will facilitate multiple tests being run simultaneously by two technicians. This area does not include the space for desks, chairs and file cabinets. Any variations shall be approved by the Engineer.

2. Lighting - The lighting in the lab must be adequate to illuminate all areas of the work.

3. Temperature Control - Equip the lab with heating and air conditioning units that provide a satisfactory working environment.

4. Ventilation - Equip the lab with exhaust fans that will remove all hazardous fumes from within the laboratory in accordance with OSHA requirements.

5. Equipment and Supplies - Furnish the lab with the necessary sampling and testing equipment and supplies for performing contractor QC and Department Verification Sampling and Testing. A detailed list of equipment and supplies required for each test is included in the appropriate FDOT, AASHTO, or ASTM Test Method. *In the event testing equipment goes out of service during production, the Contractor may elect to use replacement equipment at another laboratory qualified, as described in Section 105, for up to 72 hours upon notification of the Engineer.*

~~6. Calibration of the Superpave Gyrotory Compactor—Calibrate the Superpave Gyrotory Compactor in accordance with the manufacturer's recommendations. The calibration frequency shall be the more frequent interval of the manufacturer's recommendation or once per year as stated in AASHTO R-18. Identify in the Quality Control Plan (QCP) the established frequencies and document all calibrations.~~

~~76.~~ Personal Computer - Provide a personal computer capable of running a Microsoft Excel™ spreadsheet program, along with a printer.

~~87.~~ Communication - Provide a telephone and fax machine (with a private line) for the use of the testing facility's QC personnel. In addition, provide an internet connection capable of uploading data to the Department's database and for e-mail communications.

SUBARTICLE 320-3.2.4.1 (of the Supplemental Specifications) is deleted and the following substituted:

320-3.2.4.1. Electronic Weigh System on Truck Scales:

(a) The Engineer will randomly select a loaded truck of asphalt mix, *a loaded aggregate haul truck, or another vehicle type approved by the Engineer* and record the truck number and gross weight from the Contractor's delivery ticket.

(b) Weigh the selected truck on a certified truck scale, which is not owned by the Contractor and record the gross weight for the comparison check. If another certified truck scale is not available, the Engineer may permit another set of certified truck scales owned by the Contractor to be used. The Engineer may elect to witness the scale check.

(c) The gross weight of the loaded truck as shown on the Contractor's delivery ticket will be compared to the gross weight of the loaded truck from the other certified truck scale. The maximum permissible deviation is 8 pounds per ton of load, based on the certified truck scale weight.

(d) If the distance from the asphalt plant to the nearest certified truck scale is enough for fuel consumption to affect the accuracy of the comparison checks, a fuel adjustment may be calculated by using the truck odometer readings for the distance measurement, and 6.1 miles per gallon for the fuel consumption rate, and 115 ounces per gallon for fuel weight.

(e) During production, when an additional certified truck scale is not available for comparison checks, the Engineer may permit the Contractor to weigh the truck on his certified scales used during production and then weigh it on another certified truck scale, as soon the other scale is available for the comparison checks.

In addition to the periodic checks as specified above, check the scales at any time the accuracy of the scales becomes questionable. When such inaccuracy does not appear to be sufficient to seriously affect the weighing operations, the Engineer will allow a period of two calendar days for the Contractor to conduct the required scale check. However, in the event the indicated inaccuracy is sufficient to seriously affect the mixture, the Engineer may require immediate shut-down until the accuracy of the scales has been checked and necessary corrections have been made. Include the cost of all scale checks in the bid price for asphalt concrete, at no additional cost to the Department.

ARTICLE 320-7 (of the Supplemental Specifications) is deleted and the following substituted:

320-7 Transportation of the Mixture.

Transport the mix in trucks of tight construction, which prevents the loss of material and the excessive loss of heat and previously cleaned of all foreign material. After cleaning, thinly coat the inside surface of the truck bodies with soapy water or an asphalt release agent as needed to prevent the mixture from adhering to the beds. Do not allow excess liquid to pond in the truck body. ~~The~~ *Do not use a release agent shall not consist of any material that will contaminate, degrade, or alter the characteristics of the asphalt mix or is hazardous or detrimental to the environment. Petroleum derivatives (such as diesel fuel), solvents, and any product that dissolves asphalt are prohibited.* ~~Do not use diesel fuel or any other hazardous or environmentally detrimental material as a coating for the inside surface of the truck body.~~ Provide each truck with a tarpaulin or other waterproof cover mounted in such a manner that it can cover the entire load when required. When in place, overlap the waterproof cover on all sides so that it can be tied down. Cover each load during cool and cloudy weather and at any time it appears rain is likely during transit with a tarpaulin or waterproof cover.