

State of Illinois  
Department of Transportation  
Bureau of Materials and Physical Research  
Springfield

POLICY MEMORANDUM

Effective: January 1, 2013

31-13.0

TO: REGIONAL ENGINEERS AND HIGHWAY BUREAU CHIEFS

SUBJECT: RECLAIMED ASPHALT PAVEMENT (RAP) FOR AGGREGATE APPLICATIONS

**1.0 SCOPE**

- 1.1 The RAP aggregate producer is responsible for processing raw feed grindings, asphalt pavement or pavement preservation courses into aggregate that will comply with applicable gradation specifications. Consistent application of quality control (QC) at the crushing/screening plant or jobsite is required to achieve consistent RAP aggregate product for construction use.
- 1.2 All RAP products for Department/Local Agency aggregate use, whether at the jobsite, mix plant or central recycling facility, shall be tested according to this policy.

**2.0 PURPOSE**

- 2.1 The purpose of this policy is to establish a quality control (QC) procedure to manage RAP material designated for use in aggregate applications.

**3.0 SAMPLING/TESTING PERSONNEL**

- 3.1 All sampling and testing shall be conducted by either an Aggregate Technician or a Mixture Aggregate Technician as designated in the current BMPR Policy Memorandum "Aggregate Gradation Control System".
- 3.2 The overall program shall be administered by a Quality Control (QC) Manager, as designated in Section 3.14 in the current BMPR Policy Memorandum "Aggregate Gradation Control System" or the HMA equivalent designated in Section 1030.05 (d)(1) of the Standard Specifications.
- 3.3 Jobsite stockpiles are for use on the same contract the material originally came from. If the material is used on a different contract, the contractor for that project will have to restart this testing program with the production testing procedure defined in Section 4.1, herein.

## **4.0 SAMPLING/TESTING PROCEDURE**

### **4.1 Production Testing**

- 4.1.1 All RAP aggregate shall be 100% passing the top sieve of the gradation specified. The material shall be sampled and tested for gradation at a minimum of 1 test every 1,000 tons for the first 5,000 tons during production. After the first 5,000 tons, the material shall be sampled and tested at a minimum of 1 test every 5,000 tons. Sampling shall be according to one of the approved methods listed Illinois Test Procedure 2, in the current IDOT Manual of Test Procedures for Materials.

The required gradation testing sieve shall be the top sieve of the gradation specified.

- 4.1.2 As part of the gradation testing, a visual of the material to check for uniformity shall also be performed. Material that is one-sized, over-sized, or gap-graded shall be rejected.

### **4.2 Failing Gradation Samples**

- 4.2.1 Material that does not have 100% passing the top sieve of the specified gradation shall be immediately resampled. The producer shall immediately cease adding new material to their approved pile.

If the resample passes, the material may be placed on the approved stockpile.

If the resample fails, the Department shall be contacted and production shall stop until corrective action has been initiated by the source, through either recrushing or rescreening the material. After production is restarted, an immediate production sample shall be taken and the material stockpiled separately. Once the sample passes, the production testing frequency shall continue and the material can be moved to the approved stockpile.

### **4.3 Loadout Testing**

Loadout samples shall be taken as soon as the pile is shipped/loaded out and then a minimum of 1 test every 5,000 tons thereafter. If a loadout sample fails, an immediate resample shall be taken and loadout of the approved stockpile shall cease until the results of the resample are known.

If the resample passes, loadout of the approved stockpile shall continue.

If the resample fails, the approved stockpile is rejected and the source will need to re-crush or rescreen the material. Production testing frequency shall be followed during this reprocessing.

Jobsite stockpiles shall be visually inspected for over-sized agglomerations (RAP particles that have melded back together), excessive segregation, and any construction debris. If any of these are present, the material shall be rescreened and retested prior to use. If none of the above are present, the jobsite stockpile shall be exempt from loadout sampling.

## **5.0 IDOT MONITORING**

- 5.1 The Aggregate Inspector or Mixture Aggregate Technician shall witness the sampling of one of the RAP aggregate samples a minimum of 1 every 20,000 tons. The Aggregate Inspector or RE shall obtain a final split of the product for IDOT testing. IDOT will run the gradation over the same sieve size the producer is using. The samples shall be considered in comparison if the IDOT results are the same as the producers.

Any IDOT result not comparing within the limits noted above or fails the limits noted under production testing, shall be cause for an IDOT investigation. Corrective action may be required by the Department if determined to be a producer problem. Continued lack of comparison or continued failure of the IDOT monitor sample shall be considered non-compliance and may be cause for removal of the source from this program per section 6.0 herein.

## **6.0 ACCEPTANCE/REJECTION**

- 6.1 RAP aggregate sources shall submit a certification letter stating that this material will meet the requirements of this policy and the AGCS prior to shipment for use in any Department/Local Agency project.

RAP aggregate products having unacceptable oversize or gradation shall be isolated and removed for the approved stockpile to the satisfaction of the District Materials Engineer, RE or his/her representative.

Shipment or placement of RAP aggregate having unacceptable properties as defined in Section 4.0 herein shall result in the removal from the Approved Aggregate Source List.



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