

**SOUTH CAROLINA  
DEPARTMENT OF TRANSPORTATION**

QUALIFIED PRODUCT POLICY  
FOR  
PORTLAND CEMENT AND NON-STEEL SLAG MANUFACTURERS  
QUALIFIED PRODUCT LIST 6

GENERAL

The procedures described in this policy shall be complied with to document all Portland cement shipped to consignees for use in Department work. Sampling and testing by the Department prior to shipping and using cement will not be required, except for placing a supplier on the Department's qualified source list. Department samples will be obtained at the ready mix plant or project site in accordance with the SCDOT Quality Acceptance Sampling and Testing table on the SCDOT website and tested to determine compliance with the Department's specifications.

The procedures of this policy are for the convenience of the user and are intended to facilitate the orderly shipment and use of cement without causing delay. It does not relieve the contractor of assuring that acceptable cement is used.

QUALIFICATION OF CEMENT SOURCES:

Cement will be accepted only from producers that appear on the Department's list of qualified Portland cement sources. A supplier may request to be included on the list by applying to the Department's Structural Materials Engineer. To be included, the supplier shall demonstrate and provide documentation:

- (1) that cement produced or imported is in compliance with the Department's specifications and the latest AASHTO M85 specification,
- (2) that mill test report and delivery ticket formats contain all the information required by the Department,
- (3) that they understand the information to be furnished,
- (4) that they understand when and where to submit copies of mill test reports and proper delivery tickets when shipping occurs,
- (5) that their quality control program for cement production is adequate and acceptable and provide a copy of this program to the Structural Materials Engineer,
- (6) that the quality control program participates in the CCRL inspection and proficiency sample program. Results of this program shall be

forwarded to the Department's Structural Materials Engineer as participation occurs,

- (7) submit comparative samples of cement to be tested by the Department prior to being qualified, and
- (8) ***that the cement and/or slag will be used in SCDOT work.***

*A minimum period of forty days shall be allowed for final qualification.*

### IMPORTED PORTLAND CEMENT

All new terminals that receive imported cements that will be used in SCDOT work shall be pre-inspected by Department personnel to assure that the facility is adequate enough to protect the material from moisture or other contaminants.

Imported cements will be sampled on a shipment basis at the port of entry. A complete analysis must be performed on samples obtained from each cargo hold used to house cements while in transit. Each sample will be tested following AASHTO M 85 testing procedures by the supplier's laboratory, if AASHTO accredited, or by a qualified independent laboratory and a report of this analysis submitted to the Structural Materials Engineer. In addition, at least, one composite sample shall be taken by the Department for each 20,000 tons of material or each shipment, whichever is the lesser. A qualified independent laboratory following AASHTO M 85 testing procedures must perform a complete analysis on these samples and a complete report of these analyses must be submitted to the Structural Materials Engineer. Imported cement **may not** be used in Department work until qualification tests have been performed in this country.

### STORAGE AND HANDLING

The cement may be stored and handled in bags or bulk. The storage building, bin or silo shall be weatherproof and the material shall be maintained free from moisture or contamination at all times. Where storage is provided for different types of cement or cementitious material, the supplier will submit a quality assurance and quality control program addressing the steps used to assure materials will be kept isolated to prevent intermingling or cross contamination. The supplier shall also submit a quality assurance and quality control program addressing the steps involved in assuring that the material will be kept free from moisture and other contaminants. In addition, the supplier shall also furnish a procedure for removal of contaminated material, which will cover the amount and area for removal in the event of accidental contamination. If conditions warrant, the supplier may be required to employ a competent storekeeper, who shall have charge of the cement storehouse and shall keep suitable records of the delivery and use of all cement. Copies of such records will be made available to the Department upon request.

### MILL TEST REPORTS:

Qualified cement manufacturers are required by the Department to furnish mill test reports to a ready-mix plant or Department project.

Information on the mill test report consists of physical and chemical test results obtained by the supplier on samples of cement representative of that being certified. Additionally, it shall include (1) the type of cement, (2) the brand of cement, (3) the silo number, (4) the date of grind or voyage number, (5) date of shipment, (6) load ID number [seal number, bill of lading number, or ticket number], and (7) a certification statement stating that "THIS CEMENT GUARANTEED TO MEET ALL APPLICABLE SCDOT SPECIFICATIONS".

The above described mill test reports shall be furnished to:

Aly A. Hussein, PhD, PE  
Structural Materials Engineer  
Office of Materials & Research  
SCDOT  
P.O. Box 191  
Columbia, SC 29202  
(803) 737-6687  
Fax: (803) 737-6649  
Email: [husseinaa@scdot.org](mailto:husseinaa@scdot.org)

#### DELIVERY TICKETS:

Each truck or rail shipment of cement shall be accompanied by a proper delivery ticket upon arrival at the ready mix plant or project site designation. The delivery ticket shall identify the cement by stating (1) the type of cement, (2) the brand of cement, (3) the silo number, (4) the date of grind or voyage number, (5) date of shipment, (6) load ID number [seal number, bill of lading number, or ticket number], and (7) a certification statement stating that the cement is guaranteed to meet SCDOT specifications. An acceptable mill test report may serve as a delivery ticket.

It will be the responsibility of the contractor and/or ready-mix plant manager to have the above information available for review by the Department's inspector at such time as the cement is presented for use in work.

Cement that is not properly documented with delivery documents as described above when delivered to the ready-mix plant or job-site shall not be offered by the ready-mix plant for use until acceptable documentation is available for review by the Department's inspector.

#### ACCEPTANCE OF CEMENT AT THE DELIVERY DESTINATION:

Cement may be accepted at the time of delivery for Department use upon review of a proper delivery ticket at the ready-mix plant or project site by the Department's inspector and his approval that the ticket contains all the required information as described above for delivery tickets. Shipments of cement with improper delivery tickets shall not be used in Department projects until the matter is resolved to the satisfaction of the inspector and/or the Structural Materials Engineer.

The Department's inspector is required to review the delivery ticket but obtaining copies is optional. The inspector should maintain a record of shipping ticket numbers that

he reviews, for the project files and obtain the necessary information from them to properly complete the sample cards for submitted job control samples.

The Resident Engineer shall submit the required number of job control samples as required in the sample requirements for the project and in accordance with the SCDOT Quality Acceptance Sampling and Testing table.

#### SUPPLIER NON-COMPLIANCE:

The above acceptance procedures will be honored by the Department until such time that (1) documentation of the cement is inappropriate, or (2) Department tested field samples or other samples do not meet the applicable specifications. If these conditions should occur, immediate steps will be taken by the Structural Materials Engineer to negotiate correct documentation or obtain additional samples for further testing. Results of these negotiations and/or tests will be used to determine the future status of the Portland cement supplier as a qualified source.

#### REMOVAL FROM THE QUALIFIED PRODUCT LIST

The Department reserves the right to remove any source from the qualified product list at any time confidence is lost in a supplier's ability or intention to produce and/or store material of uniform characteristics complying with the Specifications.

#### REINSTATEMENT TO THE QUALIFIED PRODUCT LIST

Once removed from the qualified product list, a source may gain reinstatement in the following manner:

1. Suppliers should make a written request to the Structural materials Engineer asking to be reinstated to the qualified product list list. The request should detail the causes and solutions to the problem areas, which warranted removal from the qualified product list. In addition, the supplier should state measures taken to prevent reoccurrence of the problem.
2. If, after review of the request for reinstatement, it appears the supplier's problems have been solved, an inspection of the facilities will be made and all material in stock will be sampled.
3. After examination of the data gained from subparagraph 1 and 2 above, the Structural materials Engineer will decide if the supplier may be reinstated to the qualified product list. In some cases, extenuating circumstances may warrant conditional reinstatement.

#### INSPECTION

Unscheduled visits will be made to all suppliers periodically from the representatives of the Structural Materials Engineer. Materials being produced or stored will be sampled and the supplier's testing program will be reviewed.