POLICY MEMORANDUM

Revised: July 1, 2015

This Policy Memorandum supersedes number 17-08.1 dated January 1, 2012

TO: REGIONAL ENGINEERS, HIGHWAY BUREAU CHIEFS, AND PORTLAND CEMENT MANUFACTURERS

SUBJECT: PORTLAND OR BLENDED CEMENT ACCEPTANCE PROCEDURE FOR QUALIFIED AND NON-QUALIFIED PLANTS

DEFINITIONS

Agent - One who acts for or as the representative of a cement company.

Acceptance (ACC) Sample - A sample used for accepting/rejecting cement prior to its use on Department projects and/or unassigned stock for future use on projects. The quantity represented by acceptance samples must be given.

Bureau - Bureau of Materials and Physical Research, 126 E. Ash Street, Springfield, IL 62704-4766.

CCRL - Cement and Concrete Reference Laboratory.

Cement - Portland Cement or Blended Hydraulic Cement.

Composite Sample - Combined grab samples taken at prescribed intervals over a period of time.

Department - Illinois Department of Transportation.

Grab Sample - A sample secured from a conveyor, from bulk storage, or from a bulk shipment in one operation.

Independent Assurance (IND) Sample - A sample used to provide an independent check on the reliability of the manufacturer's quality control program.

Investigation (INV) Sample - A destination sample used to verify the acceptability of cement from a plant.
**Manufacturer** - A Cement Manufacturer. The term Producer is also used.

**NIST** - National Institute of Standards and Technology

**Non-Qualified Plant** - A Plant that ships cement which must be sampled, tested, and approved by the Bureau before it is used on Department projects.

**Plant** - Cement Manufacturing Plant.

**Preliminary (PRE) Sample** - A sample used to determine, in advance, if the cement will comply with Department specifications.

**Processing Addition** - An addition introduced to aid in the manufacture or handling, or both, of a hydraulic cement. This is according to ASTM C 219-07a.

**Process Control (PRO) Sample** - A sample used for the purpose of controlling production of cement proposed for incorporation into Department projects. Note: ASTM C 917 samples taken by the manufacturer may be used as PRO samples.

**Qualified Plant** - A Plant that is qualified by the Bureau to ship cement for immediate use on Department projects.

**Supplier** - A company who supplies cement which it has not manufactured.

1.0 PURPOSE

1.1 To establish procedures whereby Cement furnished by a Manufacturer or Supplier will be accepted for use on Department projects.

2.0 SCOPE

2.1 This procedure is available to all Manufacturers and Suppliers of domestic and foreign Cements. However, only Plants in North America may apply for Qualified Plant status.

3.0 SPECIFICATION REQUIREMENTS, SAMPLING, AND TEST PROCEDURES

3.1 Cements used on Department projects shall meet the material requirements of the Department’s current “Standard Specifications for Road and Bridge Construction” and current special provisions.

3.2 Portland cements used on Department projects shall meet the standard physical and chemical requirements of AASHTO M 85.
3.3 Blended hydraulic cements used on Department projects shall meet the standard physical and chemical requirements of AASHTO M 240. In the case of blending portland cement and a finely divided mineral, the Cement shall be from a Qualified Plant and the finely divided mineral shall be from an approved source.

3.4 Processing Additions used in the manufacturer of Cements shall meet the requirements of ASTM C 465.

The bill of lading (written or electronic signature) shall state if granulated blast-furnace slag, Class C fly ash, Class F fly ash, or cement kiln dust have been used as a Processing Addition in the Cement.

3.5 The bill of lading (written or electronic signature) shall state if the Cement contains limestone.

3.6 The strength uniformity of the predominant Cement manufactured at a Qualified Plant shall be reported according to ASTM C 917 and a copy of the Uniformity Test Report shall be delivered to the Bureau each quarter for review (See Section 5.3). The five-sample moving average of the 7-day strength values shall not vary from an average value, established annually by the Manufacturer, by more than ±400 psi (±2760 kPa).

3.7 Sample devices which are not according to AASHTO T 127 may be used, if approved by the Department. See Attachment 1 for current sample devices approved by the Department, which are not according to AASHTO T 127.

4.0 PORTLAND OR BLENDED CEMENT ACCEPTANCE PROCEDURES

4.1 Approval of Cement for use on Department projects will be according to one of the following two procedures:

(1) Qualified Plant Procedure. A Manufacturer desiring to avoid delays in the sampling, testing, and approval of Cement before use on Department projects, may, with Department approval, qualify a Plant to ship Cement for immediate use. Requirements for this procedure are contained in Section 5.0 of this policy memorandum. The Bureau will maintain an “Approved/Qualified Producer List of Cement Plants”.

The requirements for the Qualified Plant Procedure may be modified if the Department elects to enter into a reciprocal testing and reporting agreement with another state agency in which the Plant is located. A copy of a typical reciprocal agreement with another state is attached (See Attachment 2). The Bureau will monitor this situation by contacting the host state agency a minimum of once each three months.

(2) Non-Qualified Plant Procedure. Cement from a Plant other than a Qualified Plant will be sampled, tested, and approved by the Bureau for compliance with the requirements in this policy memorandum, before it is used on Department projects. Requirements for this procedure are contained in Section 6.0 of this policy memorandum.
5.0 QUALIFIED PLANT PROCEDURE

**Note:** The following procedure references Type I portland cement; however, it shall be the predominant Cement manufactured at the Plant.

5.1 A Manufacturer requesting qualification of a North American Plant shall provide the following to the Bureau:

1. The Plant name and location.
2. A certification that the Plant production meets the requirements of Section 3.0.
3. A 3-month strength uniformity report prepared in accordance with the requirements of ASTM C 917, “Standard Test Method for Evaluation of Cement Strength Uniformity From a Single Source.” For a new plant, the 3-month requirement is waived and all available test information at the time of application shall be provided.
4. A copy of the latest CCRL inspection report and proficiency test results for the Plant’s testing laboratory. This information shall include documentation of resolution of any inspection discrepancies noted by CCRL or resolution of unacceptable proficiency test results.
5. The estimated average 7- and 28-day strength levels of Type I cement to be shipped by the Manufacturer in the subsequent 12-month period.
6. The type of each Processing Addition, and the percent range that will be used in Type I cement. A copy of ASTM C 465 test results shall be provided when requested by BMPR.
7. The percent range of limestone that will be used in Type I cement.
8. The equivalent alkalies (Na₂O + 0.658 K₂O) range for the Type I cement or any other Cement to be supplied. The options are ≤ 0.45%, ≤ 0.60%, and >0.60%.
9. A list of the different types of portland cement and blended cement manufactured by the Plant.
10. A copy of the Safety Data Sheet (SDS) for each Cement manufactured by the Plant.

At the time of application, the Manufacturer shall obtain a 24-hour Preliminary (PRE) Composite Sample of Type I cement from current production according to AASHTO T 127. The Manufacturer shall split the PRE sample. The Bureau sample shall be placed in an airtight container and properly identified on form BMPR CM01 (link embedded). The Manufacturer shall assume the cost to deliver the sample to the Bureau. The size of the Bureau’s portion of the PRE sample shall not be less than 6 lb. (3 kg). The Manufacturer shall test the
retained portion of the PRE sample for the standard physical and chemical properties listed in AASHTO M 85. When all tests are completed, the Manufacturer shall complete form BMPR CM02 (link embedded), and deliver the test results to the Bureau. In addition, the Manufacturer shall deliver a minimum of one sample every 3 months as required in Section 5.5.

The Bureau will evaluate the test results obtained on all samples by the Manufacturer for comparison and compliance according to Section 5.5(3), and determine if additional samples are needed.

An inspector from the Bureau may conduct a scheduled visit to inspect the laboratory facilities for the Plant; the Plant manufacturing process; the Plant storage facilities; and the quality control policies, procedures, and practices performed at the Plant. The Manufacturer shall be responsible for payment of transportation, per diem (meals), lodging, and incidental travel costs incurred by the Bureau inspector if the trip from the Bureau to the Plant, the Plant inspection, and the return trip to the Bureau cannot be completed within one day's normal work hours of 8:00 AM to 4:30 PM.

The Bureau will notify the Manufacturer, in writing, if the request for qualification is approved or denied. A request may be denied if the Manufacturer fails to meet the requirements of Sections 2.0, 3.0, 5.0, or for other reasons determined by the Department.

5.2 Quality Control Requirements for Qualified Plants:

(1) The Manufacturer shall establish and maintain quality control policies and procedures for sampling and testing the finished product, in addition, to other quality control practices. Quality control programs shall be made available for review by the Bureau upon request.

(2) The Manufacturer’s testing laboratory shall participate in the CCRL program of the NIST, which includes inspection of facilities and testing of comparative samples on a regular basis. The Manufacturer shall deliver a copy of CCRL inspections and proficiency test results to the Bureau as soon as they are available, but no later than 30 days after receipt of notification. This information shall include documentation of resolution of any inspection discrepancies noted by CCRL or resolution of unacceptable proficiency test results.

5.3 Reporting Requirements for Qualified Plants:

(1) The Manufacturer shall deliver a Uniformity Test Report to the Bureau each quarter. Sampling, testing, and reporting shall be done according to the methods in ASTM C 917, “Standard Test Method for Evaluation of Cement Strength Uniformity from a Single Source.”

(2) The Uniformity Test Report shall be delivered to the Bureau no later than 40 calendar days after the end of the quarter (i.e. the end of March, June, September, and December). If the deadline falls on a Saturday, Sunday, or State Holiday, the deadline shall be the next work day.
(3) The Manufacturer shall provide to the Bureau, by January 31st of each year, the estimated average 7- and 28-day strength levels of the Type I cement that will be shipped in the subsequent 12-month period.

(4) The Manufacturer shall provide to the Bureau, by January 31st of each year, the type of each Processing Addition, and the percent range that will be used in the manufacture of Type I cement.

(5) The Manufacturer shall provide to the Bureau, by January 31st of each year, the percent range of limestone that will be used in the manufacture of Type I cement.

(6) The Manufacturer shall provide to the Bureau, by January 31st of each year, the equivalent alkalies (Na2O + 0.658 K2O) range that will be used in the manufacture of Type I cement or any other Cement to be supplied. The options are ≤ 0.45%, ≤ 0.60%, and > 0.60%.

5.4 Record Requirements for Qualified Plants:

(1) Records of production control tests shall be maintained by the Manufacturer for a minimum period of 5 years, and shall be made available to the Bureau upon request.

(2) Copies of bills of lading of quantities of Cement shipped shall be maintained by the Manufacturer for a minimum period of 3 years, and shall be made available to the Bureau upon request.

5.5 Sampling and Test Requirements for Qualified Plants:

(1) In March, June, September, and December, unless otherwise specified by the Bureau, the Manufacturer shall obtain a Process Control (PRO) Grab Sample of Type I cement, according to AASHTO T 127, which shall be split for testing by the Manufacturer and the Bureau. The Bureau may require that more frequent PRO Grab Samples be obtained and tested. These samples may be requested because of a change in Cement, variations in test results between the Bureau and Manufacturer; field test results; or other reasons as determined by the Bureau. The split sample shall be taken during the specified month, and shall be delivered to the Bureau no later than the last work day of the month. The Bureau sample shall be placed in an airtight container and properly identified on form BMPR CM01 (link embedded). The Manufacturer shall assume the cost to deliver the sample to the Bureau. The size of the Bureau's portion of the PRO sample shall not be less than 6 lb. (3 kg).

(2) The Manufacturer shall test the retained portion of each PRO sample for the standard physical and chemical properties listed in AASHTO M 85. When all tests are completed, the Manufacturer shall complete form BMPR CM02 (link embedded) and deliver the test results to the Bureau no later than the last work day of the following month from the date of sample. (Contact the Bureau when forms for blended cement samples are required.)
(3) The test results obtained by the Manufacturer and the Bureau on all split samples will be compared for compliance with the allowable differences for two different laboratories set forth in the precision statement of each test method and for compliance with Section 3.0. If significant differences exist in the split sample test results, the Department will investigate sampling and test procedures, or require additional comparative sampling to determine the cause of the variation.

5.6 Department Inspections of Qualified Plants:

(1) An inspector from the Bureau may conduct unscheduled visits to each Qualified Plant or one of its terminals. During this visit, the inspector will either take or witness the taking of a random Independent Assurance (IND) Grab Sample according to AASHTO T 127. The inspector will split the sample and deliver an equal portion to the Manufacturer. The Manufacturer shall test the retained portion of the split sample for the standard physical and chemical properties listed in the AASHTO specifications. When all tests are completed, the Manufacturer shall complete form BMPR CM02 (link embedded), and deliver the test results to the Bureau no later than the last work day of the following month from the date of sample. The Bureau will evaluate the test results obtained on the sample by the Manufacturer according to Section 5.5(3).

(2) The Manufacturer shall be responsible for payment of transportation, per diem (meals), lodging, and incidental travel costs incurred by the Bureau inspector if the trip from the Bureau to the Plant, the Plant inspection, and the return trip to the Bureau cannot be completed within one day's normal work hours of 8:00 AM to 4:30 PM. Reimbursement for travel costs shall be provided no later than 30 calendar days after receipt of costs submitted by the Department.

(3) Random Investigation (INV) samples of Cement will be obtained at final destination by a representative of the Department. The representative will either take or witness the taking of the INV samples. INV samples will be Grab Samples and will be taken according to AASHTO T 127. The sampling location and frequency for obtaining INV samples will be determined by the Bureau in consultation with the district offices. The Bureau will use INV samples to verify that Cement shipped from Qualified Plants meets the requirements of Section 3.0.

5.7 Disqualification of Qualified Plants:

(1) Failure of a Qualified Plant to meet the requirements of Sections 3.0 and 5.0 of this policy memorandum will be sufficient cause for disqualification. The occurrence of three late submittals in a twelve month period for any of the following: Uniformity Test Report, PRO Sample, or PRO test results; will result in a meeting with the Manufacturer. The Manufacturer will be given an opportunity to submit a plan for corrective action. Failure to correct the late submittal problem will result in disqualification. A late submittal will be
based on the postmark date. If there is no postmark date, a late submittal will be based on date of receipt by the Bureau.

(2) Failure to resolve significant differences in testing, as indicated by the test results obtained on PRO or IND samples split with the Manufacturer, will be sufficient cause for disqualification.

(3) Failure to satisfactorily resolve the discrepancies in the Manufacturer’s test equipment or test procedures noted by the CCRL inspector in the report will be sufficient cause for disqualification.

(4) When a Plant has been disqualified, the Department will notify the Manufacturer in writing.

(5) Cement from a Non-Qualified Plant will be accepted for use on Department projects according to Section 6.0.

(6) The Manufacturer may re-apply for Qualified Plant status any time after disqualification. However, a minimum of 28 days shall have elapsed from the date of disqualification before reinstatement will be considered. The actual date of reinstatement is subject to the determination of the Engineer that the problem is corrected.

6.0 NON-QUALIFIED PLANT PROCEDURE

6.1 A Manufacturer or Supplier requesting approval of Cement from a non-qualified Plant shall provide the following to the Bureau:

(1) Manufacturer name.

(2) Plant name and location.

(3) A current test report, in English, which indicates the standard physical and chemical composition of the Cement as per Section 3.0.

(4) The type of each Processing Addition, and the percent range that will be used in Type I Cement. The percent range of limestone that will be used in Type I Cement. The Manufacturer or Supplier shall immediately notify the Bureau of any changes in the Processing Additions or their percentages, and any change in the limestone percentage.

(5) The transportation method and location at which an inspector from the Bureau will be able to obtain Acceptance (ACC) samples.

(6) If requested by the Bureau, the Manufacturer or Supplier shall deliver to the Bureau a 24-hr Preliminary (PRE) Composite Sample of Cement from current shipments according to AASHTO T 127. The Bureau sample shall be placed in an airtight container and properly identified on form BMPR CM01 (link embedded). The Manufacturer or Supplier shall assume the cost to deliver it to the Bureau. The size of the PRE sample shall not be less than 6 lb. (3 kg).
6.2 Sampling and Test Requirements for Non-Qualified Plants in North America:

(1) Cement from a Non-Qualified Plant will be sampled, tested, and approved by the Bureau before use on Department projects. The Bureau has the option to affix a seal to secure Cement in storage (i.e. silo, truck, railroad car, or barge) until the Bureau's testing is completed.

(2) Upon arrival of the Cement to Illinois, an inspector from the Bureau will obtain Acceptance (ACC) Grab Samples according to AASHTO T 127. The Bureau will determine the number of representative samples required.

(3) The Manufacturer or Supplier may request the Bureau to sample the Cement prior to arrival in Illinois. In the event the request is approved, the Manufacturer or Supplier shall be responsible for payment of transportation, per diem (meals), lodging, and incidental travel costs incurred by the Bureau inspector if the trip from the Bureau to the Cement location, the sampling, and the return trip to the Bureau cannot be completed within one day's normal work hours of 8:00 AM to 4:30 PM. If the Department determines that it lacks the resources to accomplish out-of-state inspection, the Cement may be sampled and tested according to the procedures in Section 6.3.

(4) Acceptance (ACC) samples will be tested by the Bureau for conformance to Section 3.0, and to approve the Cement for use on Department projects.

(5) Random Investigation (INV) sample of Cement may be obtained at final destination by a representative of the Department. The representative will either take or witness the taking of the INV samples. INV samples will be Grab Samples and will be taken according to AASHTO T 127. The sampling location and frequency for obtaining INV samples will be determined by the Bureau in consultation with the district offices. The Bureau will use INV samples to verify that the Cement shipped meets the requirements of Section 3.0.

6.3 Sampling and Test Requirements for Non-Qualified Plants Located Outside North America:

(1) At the port of entry, an Agent of the importer shall obtain an Independent Assurance (IND) Composite Sample from each of the vessel's holds containing foreign Cement. The Agent shall split each vessel Composite Sample and mail one portion to the Bureau. The other portion shall be mailed to the importer’s Cement manufacturing Plant that is on the Department’s list of qualified Plants.

(2) An Agent of the importer shall obtain a minimum of one Acceptance (ACC) Grab Sample from each barge of foreign Cement destined for Illinois. The Agent shall split each barge Grab Sample and mail one portion to the Bureau. The other portion shall be mailed to the importer’s Cement manufacturing Plant that is on the Department’s list of qualified Plants.
(3) The importer of the **Cement** shall be responsible for all sampling and mailing costs.

(4) The importer’s laboratory shall test its portion of each vessel and barge sample for the standard physical and chemical requirements of the applicable specifications (Notes 1 and 2).

(5) Upon completion of the tests, the importer shall deliver to the **Bureau** a certification that states the **Cement** in the vessel unloaded at the port of entry and the **Cement** loaded onto each barge destined for Illinois has been tested by the importer, and complies with the applicable specifications. Attached to the certification shall be a test report of all vessel and barge samples. The report shall include for all vessel samples: the name of the vessel, the source of the **Cement**, each sample’s hold number, the date the vessel arrived at the port of entry, the date the sample was taken, and the physical and chemical test results obtained on the samples. The report shall include for all barge samples: the barge number, the date the sample was taken, the quantity of **Cement** in the barge, and the physical and chemical test results obtained on the samples.

(6) The importer shall immediately notify the **Bureau** if a vessel or barge sample fails to meet the applicable specification requirements.

(7) The **Bureau** will review the certification and compare the importer’s test data to the test data obtained by the **Bureau** on its portion of each split sample.

(8) When the certification and the accompanying test report are examined and determined to be correct, the **Bureau** will notify the importer and the district offices that the **Cement** is approved for state projects.

(9) Random **Investigation (INV) Samples**, from one or more barges, may be taken by a **Department** inspector when the barges arrive at the Illinois terminal(s).

(10) The **Department** will reject any foreign **Cement** tested by the **Bureau**, or the importer, that does not meet the specification requirements. For split samples where one party is within specification and the other party is out of specification, the **Cement** will be considered out of specification and will be rejected unless the failing test is determined to be flawed by the **Bureau**.

(11) Exceptions to the procedures above will be considered for **Cements** which have an acceptable quality history, and which have previously been approved by the **Department**.

(12) Requests for reduced sampling and testing of **Cement** in particular vessels shall be directed to the **Bureau** for approval.

**Note 1.** **Cements** to be certified by the importer as meeting the physical requirements of AASHTO M 85 or AASHTO M 240 shall be tested for autoclave expansion, normal consistency, air content, Vicat time of set, Blaine fineness, and 3- and 7-day compressive strength.
Note 2. There are cases where the optimum sulfur trioxide (using ASTM Test Method C 563) of a Cement exceeds the applicable specification limit. In such cases, it is permissible to exceed the specification limit, provided it has been demonstrated (by ASTM Test Method C 1038) that the increased sulfur trioxide will not develop expansion in water exceeding 0.020% at 14 days. The importer shall deliver supporting test data to the Bureau for each vessel of Cement supplied, under this provision, to Illinois.

7.0 ACCEPTANCE OF CEMENT

7.1 Cement will be accepted according to the Department’s current “Standard Specifications for Road and Bridge Construction,” current special provisions, and this policy memorandum.

7.2 The Bureau will maintain an “Approved/Qualified Producer List of Cement Plants” on the internet, which will indicate the Qualified Plants that meet the requirements of this policy memorandum. This list will include the name, location, and Producer/Supplier Number of each Qualified Plant. The list will also include the different types of portland cement and blended cement manufactured by the Plant. Other information as appropriate will also be provided on the list. These Plants may ship Cement for immediate use on Department projects.

7.3 Cement from Non-Qualified Plants will be sampled, tested, and approved by the Bureau before use on Department projects.

7.4 Cement from foreign plants will be accepted according to the procedures in Section 6.3.

8.0 REJECTION OF CEMENT

8.1 Cement that fails to conform to the requirements of Section 3.0 of this policy memorandum shall be rejected for use on Department projects.

8.2 The Bureau will notify the Manufacturer or Supplier when Cement is rejected for use on Department projects.

Laura R. Mlacnik, P.E.
Acting, Engineer of Materials
and Physical Research

Attachments

JMK
Vacuum Type Bulk Cement Sampler

- 75 mm (3 in) dia. ball valve
- 64 mm (2 1/2 in) dia. threaded pipe flange
- Approx. 60° bevel

Drop Type Bulk Cement Sampler

- Handle formed of #5 wire into arc
- approx. 200 mm (8 in) high and welded to opposite sides of pipe.
- 120 mm (4 5/8 in) o.d. galvanized pipe
- 5.5 mm (0.220 in) wall thickness.
- Solid cone of cold or hot rolled steel.

Note:
Total mass weight of sampler not less than 8 kg (13 lb)
Tube Type Bulk Cement Sampler

- Swivel Handle
- 76 mm (3 in) dia PVC Pipe
- Hole 51 mm x 127 mm (2 x 5 in)
- Hole 51 mm x 127 mm (2 x 5 in)
- Solid Aluminum Point

Dimensions:
- 1965 mm (6 ft 5 in)
- 711 mm (28 in)
- 305 mm (12 in)
- 76 mm (3 in)
ARTICLES OF AGREEMENT FOR PORTLAND CEMENT AND BLENDED CEMENTS

CEMENT PLANT ACCEPTANCE APPROVAL SOURCE

BETWEEN
THE HOST STATE AGENCY OF

AND
AND THE RECIPROCAL STATE AGENCY OF

CEMENT COMPANY:

FACILITY LOCATED AT:

CEMENT TYPE & ASSOCIATED PRODUCT NAME

1. The host state agency that performs testing for acceptance of hydraulic cement plants within its boundaries shall have a laboratory meeting the requirements of ASTM C 1222. The host state agency lab shall be accredited by the AASHTO Materials Reference Laboratory (AMRL) for hydraulic cement testing of the applicable cement types (AASHTO M 85 / ASTM C 150, AASHTO M 240 / ASTM C 595, and ASTM C 1157) produced. Agency laboratories used for verification testing must meet the same criteria.

2. The host state agency will require the cement plant within its boundaries to have a written quality control plan. The plan must include commitments to comply with ASTM C 1222 and AASHTO T 127 / ASTM C183, and with sampling and testing of the host state. This plan shall include the following:
   a. Type and associated product name of cement produced
   b. Location, procedure and frequency of sampling
   c. Report standard specification used in testing

The host state agency will verify compliance with the quality control plan.
3. The host state agency will require the cement plant within its boundaries to issue semiannual mill test reports for each lot (silo) of cement shipped. The certified mill analysis test report shall include the following:
   a. Mill Location
   b. Type of Cement
   c. Production Period
   d. Manufacturer
   e. Product Name
   f. A statement that (a) portland cement conforms to ASTM C150/AASHTO M 85, (b) blended cements conforms to ASTM C595/AASHTO M 240, or (c) performance specification cements conforms to ASTM C1157.

4. The host state agency will require the cement producer to submit two split samples for all cements produced by the plant, which shall include portland cement according to (AASHTO M 85 / ASTM C150), blended portland cement according to (AASHTO M 240 / ASTM C 595), and performance specification cement according to (ASTM C 1157). The split samples shall be submitted at least semiannually for verification testing. The second sample shall be retained for independent analysis if needed.

5. The host state agency will require the cement producer to submit semiannual reports for ASTM C 917 for each cement produced. In lieu of ASTM C 917 sampling and testing, production data may be analyzed and reported for the non-predominant cements manufactured at a cement plant.

6. The host state agency will require the cement producer to maintain production and quality control records for at least seven years and make those records available if requested.

7. The host state agency will review submittals from the cement producer along with agency test results. If deficiencies are discovered, the state agency will monitor corrective actions taken by the producer until the deficiencies are corrected. The reciprocal agreement state agency will be notified of the deficiencies and of each occurrence.

8. Any test results or submittals collected by the host state agency may be made available to the reciprocal agreement state agency upon request.

9. All cement plant information and data is confidential within the limits of a public agency and is for state agencies information and inspection only.

10. Quality assurance test results of field samples, performed by a reciprocal state, shall be reported to the host state agency when a non-compliance occurs. The reciprocal state agency will deal directly with the cement producer. The host state agency will take action as described in Item 7. The host state agency shall notify all reciprocal agreement state agencies when a non-compliance occurs.
11. This agreement shall be reviewed once every 5 years or when a change occurs in the source, type, or brand name or upon request by either the host state and/or reciprocal state agencies.

12. Cement tests or requirements beyond the standards stated above may be provided to reciprocal state agencies by agreement between the host state agency and reciprocal state agencies.

Materials Engineer: _____________________  State of ________________
Date____________

Materials Engineer: _____________________  State of ________________
Date___________