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

POLICY MEMORANDUM

Revised: July 1, 2015 17-08.2
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 (Na_2O + 0.658 K_2O) 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 (Na_2O + 0.658 K_2O) 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.

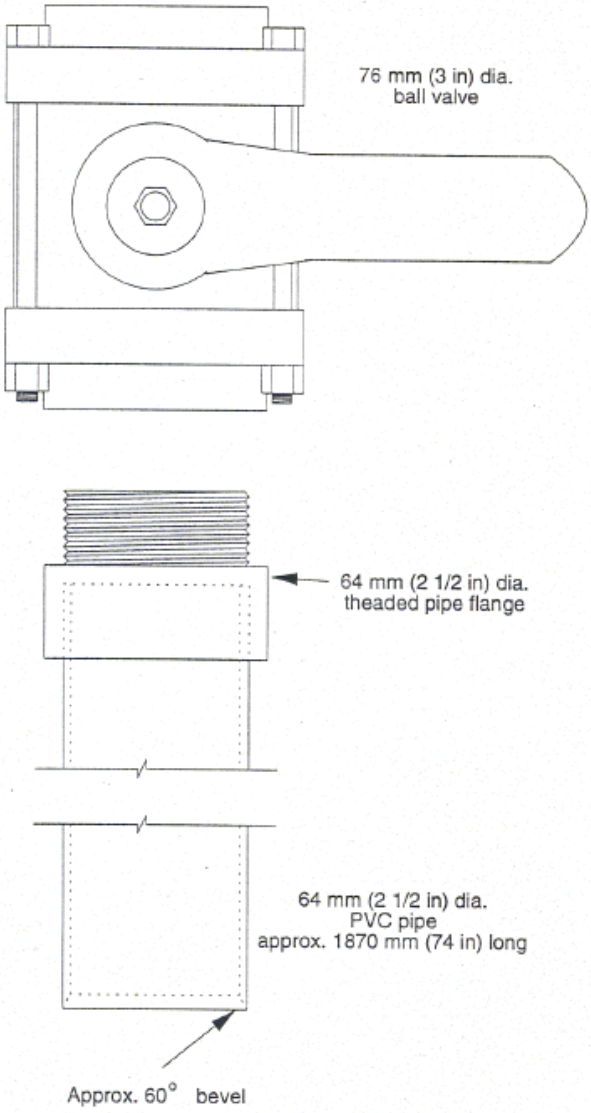
8.2 The **Bureau** will notify the **Manufacturer** or **Supplier** when **Cement** is rejected for use on **Department** projects.

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

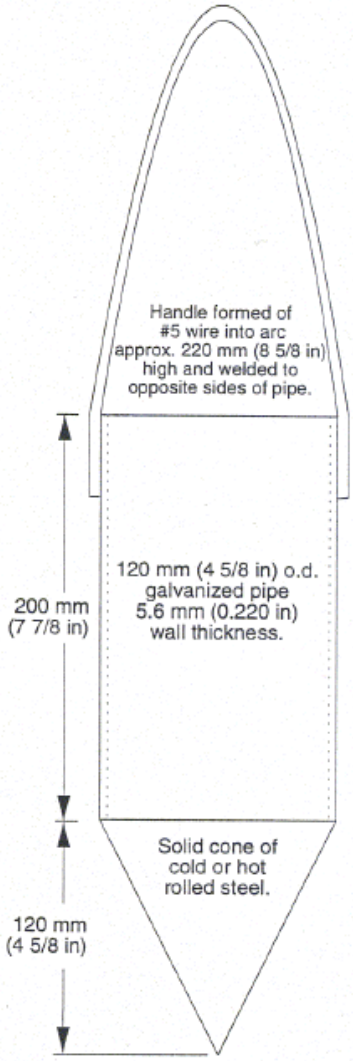
Attachments

JMK

Vacuum Type Bulk Cement Sampler

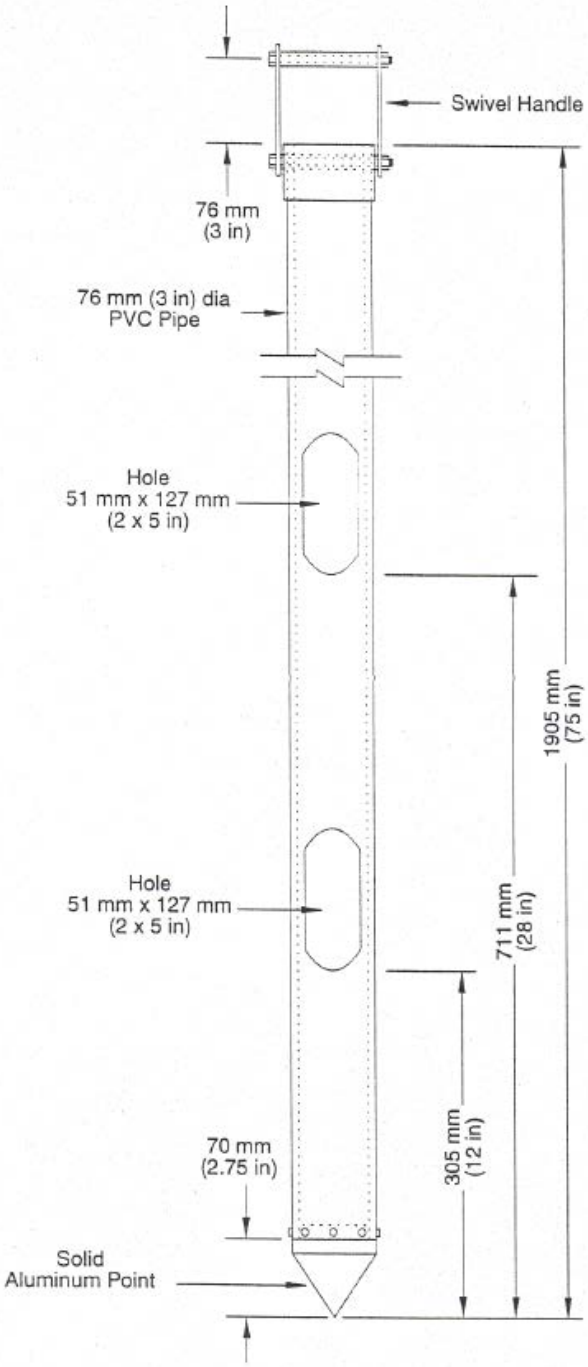


Drop Type Bulk Cement Sampler



Note:
Total mass weight of sampler not less than 6 kg (13 lb)

Tube Type Bulk Cement Sampler



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_____