

National Concrete Consortium Reciprocity Agreement

PORTLAND CEMENTS & BLENDED CEMENTS



Todd Hanson - Iowa DOT
Lieska Halsey - Nebraska DOR

National Concrete Consortium
September 11, 2014
Omaha, Nebraska

Reciprocity Agreement



Purpose

National Concrete Consortium (NCC) Cement Reciprocity Agreement is to help unify State Department of Transportation with the Initial Acceptance of Portland and Blended Cements.

The intent is to have uniform Department of Transportation procedure to ensure consistency of cement plant acceptance approval source.



Partnership Midwest Concrete Consortium

2000

TimeLine - Cement Plant Reciprocity

2014

Agreement established

**Revised
National Concrete Consortium
Reciprocity Agreement**

Agreement Benefits

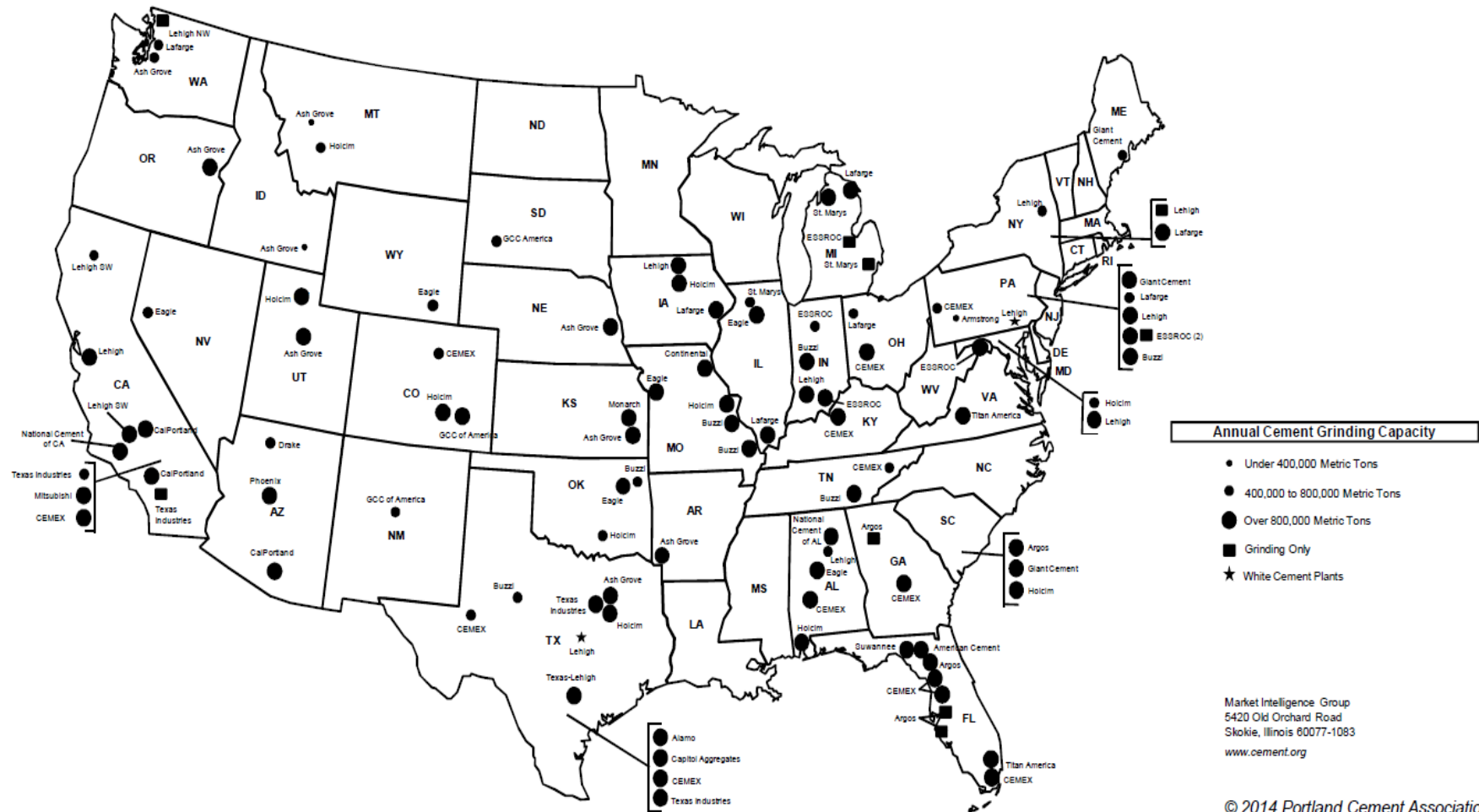
- Uniformity between states for initial cement acceptance
- Uniformity for cement manufacturer's for cement approval for each individual state
- Reduction of Department of Transportation testing for initial cement testing acceptance

Task Force Committee Members

- **Lieska Halsey (Nebraska)**
- **Todd Hanson (Iowa)**
- **John Staton (Michigan)**
- **Dave Suchorski (Ash Grove)**
- **Lori Tiefenthaler (Lehigh Cement)**
- **Tom Cackler (CP Tech Center)**
- **Maria Masten (Minnesota)**
- **John Melander (SCA)**
- **Paul Tennis (PCA)**
- **Thomas Grisinger (Lehigh Cement)**

CEMENT MANUFACTURING PLANTS IN THE US

United States Portland Cement Plant Locations



Articles of Agreement for Portland Cement and Blended Cements Cement Plant Acceptance Highlights

1 Standardization Update

2 Requirements

3 Participating States Agreement

Revised 08-2014

TASK FORCE

ARTICLES OF AGREEMENT FOR PORTLAND CEMENT AND BLENDED CEMENTS

CEMENT PLANT ACCEPTANCE
APPROVAL SOURCE

BETWEEN
THE HOST STATE AGENCY OF

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 C1222, "Standard Practice for Evaluation of Laboratories Testing Hydraulic Cement."
 - a. The host state agency laboratory shall be accredited through the AASHTO Accreditation program. The laboratory in authority will perform applicable testing on cement produced in accordance to
 - i. Standard Specification for Portland Cement (ASTM C150/AASHTO M85)
 - ii. Standard Specification for Blended Hydraulic Cements (ASTM C595/AASHTO M 240)
 - iii. Standard Performance Specification for Hydraulic Cement (ASTM C1157)
 - b. Agency laboratories used for verification testing must meet the same criteria as prescribed in paragraph 1. a.

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2. The host state agency will require the cement plant within its boundaries to issue mill test report at least semiannually.
 - a. The certified mill analysis test report shall include the following:
 - i. Mill Location
 - ii. Type of Cement
 - iii. Production Period
 - iv. Manufacturer
 - v. Product Name
 - vi. 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.
3. The host state agency shall require the cement manufacturer to comply with ASTM C1222, "Standard Practice for Evaluation of Laboratories Testing Hydraulic Cement" and ASTM C118, "Standard Practice for Sampling and the Amount of Testing of Hydraulic Cement".
 - a. The host state agency shall require the cement manufacturer to submit a written quality control plan. This plan shall include the following:
 - i. Type and associated product name of cement produced
 - ii. Location, procedure and frequency of sampling
 - iii. Report standard specification used in testing
 - b. The host state agency will verify compliance with the quality control plan for the production of cements used by state agency.
 - c. The manufacturer's plan must include commitments to comply with sampling and testing of the host state.
4. The host state agency will require the cement producer to submit two split samples of a portland cement (ASTM C150/AASHTO M 85) and a blended cement (ASTM C595/AASHTO M 240) or performance specification cement (ASTM C1157) if produced, semiannually for verification testing. The second sample shall be retained for independent analysis if needed.
5. The host state agency will require the cement manufacturer to submit reports for "Standard Test Method for Evaluation of Cement Strength Uniformity from a Single Source" (ASTM C917) for both portland cement and blended cement, if produced at least semiannually. In lieu of ASTM C917 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/quality assurance 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.

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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 paragraph 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 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 and reciprocal state agencies.

Materials Engineer
State Host Agency

Date

Materials Engineer
State Reciprocal Agency

Date

Articles of Agreement for Portland Cement and Blended Cements Cement Plant Acceptance Highlights

1 Standardization Update

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**ARTICLES OF AGREEMENT FOR PORTLAND CEMENT
AND
BLENDED CEMENTS**

**CEMENT PLANT ACCEPTANCE
APPROVAL SOURCE**

**BETWEEN
THE HOST STATE AGENCY OF**

**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 C1222, "Standard Practice for Evaluation of Laboratories Testing Hydraulic Cement."

a. The host state agency laboratory shall be accredited through the AASHTO Accreditation program. The laboratory in authority will perform applicable testing on cement produced in accordance to:

- Standard Specification for Portland Cement (ASTM C150/AASHTO M85)
- Standard Specification for Blended Hydraulic Cements (ASTM C595/AASHTO M 240)
- Standard Performance Specification for Hydraulic Cement (ASTM C1157)

b. Agency laboratories used for verification testing must meet the same criteria as prescribed in paragraph 1. a.

- Cement Plant Acceptance approval source will not replace an individual state's acceptance requirements from individual projects.
- Host State performing acceptance testing of hydraulic cement plants shall be accredited through the AASHTO Accreditation program.

Articles of Agreement for Portland Cement and Blended Cements Cement Plant Acceptance Highlights

2 Requirements

- Revised 08-2014 TASK FORCE
2. The host state agency will require the cement plant within its boundaries to issue mill test report at least semiannually.
 - a. The certified mill analysis test report shall include the following:
 - i. Mill Location
 - ii. Type of Cement
 - iii. Production Period
 - iv. Manufacturer
 - v. Product Name
 - vi. 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.
 3. The host state agency shall require the cement manufacturer to comply with ASTM C1222, "Standard Practice for Evaluation of Laboratories Testing Hydraulic Cement" and ASTM C183, "Standard Practice for Sampling and the Amount of Testing of Hydraulic Cement".
 - a. The host state agency shall require the cement manufacturer to submit a written quality control plan. This plan shall include the following:
 - i. Type and associated product name of cement produced
 - ii. Location, procedure and frequency of sampling
 - iii. Report standard specification used in testing
 - b. The host state agency will verify compliance with the quality control plan for the production of cements used by state agency.
 - c. The manufacturer's plan must include commitments to comply with sampling and testing of the host state.
 4. The host state agency will require the cement producer to submit two split samples of a portland cement (ASTM C150/AASHTO M 85) and a blended cement (ASTM C595/AASHTO M 240) or performance specification cement (ASTM C1157) if produced, semiannually for verification testing. The second sample shall be retained for independent analysis if needed.
 5. The host state agency will require the cement manufacturer to submit reports for "Standard Test Method for Evaluation of Cement Strength Uniformity from a Single Source" (ASTM C917) for both portland cement and blended cement, if produced at least semiannually. In lieu of ASTM C917 sampling and testing, production data may be analyzed and reported for the non-premium cements manufactured at a cement plant.
 6. The host state agency will require the cement producer to maintain production and quality control/quality assurance 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.

- The host state agency will require the cement producers to submit mill test reports, perform split sample testing semiannually, comply with C1222, submit C 917 data semiannually and maintain quality control records.

Articles of Agreement for Portland Cement and Blended Cements Cement Plant Acceptance Highlights

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Participating States Agreement

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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 paragraph 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 or/and 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 and reciprocal state agencies.

Materials Engineer
State Host Agency

Date

Materials Engineer
State Reciprocal Agency

Date

- This agreement will be reviewed every 5 years or when a change occurs in the source, type, or brand name by either the host state or and reciprocal state.



Comments ?