# MC<sup>2</sup> CEMENT RECIPROCITY AGREEMENT

John F. Staton – Michigan DOT Maria Masten – Minnesota DOT National Concrete Consortium April 24, 2014 Jacksonville, Florida

### TAKING A TRIP DOWN MEMORY LANE

- oMC<sup>2</sup> meeting in St. Louis, MO
- Cement Plant Reciprocity
  - Intent was for states to not duplicate testing of cements for plant acceptance
- Cooperative agreement established in early 2000

# MC<sup>2</sup> ARTICLES OF AGREEMENT FOR PORTLAND CEMENT PLANT ACCEPTANCE

#### MIDWEST CONCRETE CONSORTIUM

### ARTICLES OF AGREEMENT FOR PORTLAND CEMENT PLANT ACCEPTANCE

BETWEEN THE STATE OF \_\_\_\_\_\_AND THE STATE OF \_\_\_\_\_

| FOR CEMENT FROM:     | CEMENT COMPANY |
|----------------------|----------------|
| FACILITY LOCATED AT: |                |

- 1. The host state agency will require the portland cement plant within its boundaries to have a laboratory compliant with ASTM C1222 Standard Practice for Evaluation of Laboratories Testing Hydraulic Cement. This lab will perform testing on the applicable types of cement (ASTM C150/AASHTO M85, ASTM C595/AASHTO M240, C1157) produced and shipped for state agencies consumption. AASHTO accreditation for hydraulic cement testing of the applicable cement types is acceptable. Agency laboratories used for verification testing must meet the same criteria.
- 2. The host state agency will require the portland cement plant within its boundaries to have a printed, agency acceptable quality control/quality assurance plan for the production of cements used by state agencies. The plan must include commitments to comply with ASTM C1222 and ASTM C183 Standard Practice for Sampling and the Amount of Testing of Hydraulic Cement. The host state agency will verify compliance with the quality control plan.
- The host state agency will require the cement producer to maintain and provide, for all lots of cement shipped, a compilation of mill test reports in an electronic form. The applicable data will be provided to the host state agency at least semiannually.
- 4. The host state agency will require the cement producer to submit two split samples of a regular portland cement (ASTM C150/AASHTO M85) and a blended portland cement (ASTM C595 /AASHTO M240) or performance specification cement (ASTM C1157) if produced, semiannually for verification testing. The second sample shall be retained for independent analysis if needed.
- The host state agency will require the cement producer to submit reports for ASTM C917
   Standard Test Method for Evaluation of Cement Strength Uniformity From a Single
   Source for both a regular portland cement and a blended portland 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.

- 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.
- Any test results or submittals collected by the host state agency may be made available to the reciprocal agreement state agency upon request.
- All portland 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.
- Portland 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 of | Date |
|---------------------|----------|------|
| Materials Engineer: | State of | Date |

Page 1 of 1

# PARTICIPATING STATES RECIPROCITY

- Michigan Host State
  - Sends CV test reports sent to participating state,
    - •Wisconsin
      - LaFarge Alpena
    - Minnesota
      - •All test reports
- Minnesota Participating State (No local cement plants)
  - Utilizes Michigan, Iowa, Missouri and Nebraska test results

# CEMENT MANUFACTURING PLANTS IN THE US

Plant Data as of December 31, 2008 **British Columbia** Alberta Lafarge Canada Saskatchewan Manitoba ND GCC America Ash Grove • WY Eagle Eagle CEMEX CO Holcim **Annual Cement Grinding Capacity**  Under 400,000 Metric Tons 400,000 to 800,000 Metric Tons Over 800,000 Metric Tons Grinding Only ★ White Cement Plants Economic Research Department 5420 Old Orchard Road Skokie, Illinois 60077-1083 www.cement.org © 2009 Portland Cement Association

# MC<sup>2</sup> BECOMES NCC

- Is it time to amend the Articles of Agreement to provide NCC states the same opportunity?
- Has technology or requirements necessitate updating the language of the agreement?

# LOOKING FOR VOLUNTEERS

- Establish a task force for updating the Reciprocity Agreement
- Look at what each state DOT tests/requires for plant approval
- Standardization opportunities?