



**Arizona  
Rock  
Products  
Association**

# **CERTIFICATION OF READY MIXED CONCRETE PRODUCTION FACILITIES**

<b>COMPANY</b> ARIZONA MATERIALS	<b>PLANT NO.</b> FLAG EAST
<b>Plant Address or Physical Location</b> 5300 E. EMPIRE, FLAGSTAFF, AZ	
<b>Engineer</b> DONALD L. CORNELISON	
<b>Inspection Date</b> 5/2/2011	<b>Expiration Date</b> 5/2/2013

**Arizona Rock Products Association  
916 W. Adams Street  
Phoenix, Arizona 85007**

Submit electronic copy of checklist to [elaine@azrockproducts.org](mailto:elaine@azrockproducts.org)



**ARIZONA  
ROCK  
PRODUCTS  
ASSOCIATION**

*Certificate of Conformance  
for  
Concrete Production Facilities*

It is hereby certified that  
**Arizona Materials, Plant #Flag East  
5300 E Empire, Flagstaff AZ**

has been inspected by the undersigned registered professional engineer for conformance with requirements of the "Check List for Ready Mixed Concrete Production Facilities." As of the inspection date, the facilities met requirements as stated below.

**Operation: Truck Mixing**  
**Batching System: Fully Automated**  
**Recording: Cementitious, Aggregate, Water, Admixture**

*Steve Trussell*

Executive Director

*5/9/11*

Date

Arizona Rock Products Association



This Company will maintain these facilities in compliance with the Check List requirements and will correct promptly

## 11. CONCRETE BATCH PLANT INSPECTION REPORT

Ready Mix Supplier: Arizona Materials Date: 5/2/2011  
 Plant number: Flag East Project Name: AZ Matls 2011 Truck & Pit Inspection  
 Plant Location: 5300 E. Empire, Flagstaff, AZ Project Number: 110600ZA  
 Inspector: Donald L. Cornelison Lab Number: 352569

**Directions for the inspector: Place an "x" in the applicable box.**

<u>MATERIALS/INGREDIENTS</u>	<u>ACCEPTABLE</u>	<u>NOT ACCEPTABLE</u>	<u>NOT APPLICABLE</u>
<b>1. Aggregates</b>			
a. Aggregates transported, separated, stored, stockpiled, and fed to plant correctly (Note 1).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Aggregates meet applicable quality requirements (Note 1).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Cementitious Materials</b>			
a. Silos are watertight without excessive leakage. Separate storage for cement and flyash.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Admixtures/Additives</b>			
a. Admixtures protected to prevent damage from contamination and separation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Admixtures protected from freezing.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Water</b>			
a. Adequate supply and pressure.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Adequate heating and/or chilling capacity (Note 2).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>BATCHING PLANT</b>			
<b>5. Scales, Plant Bins, and Weigh Batchers</b>			
a. Scale Type: Beam-indicating <input type="checkbox"/> Dial-indicating <input type="checkbox"/> Digital-indicating <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Scale display(s) visible to batchman at normal station.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Scales/batchers accurate within applicable tolerances (Note 3).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Scales Calibrated within last 6 months.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Separate bins for fine aggregate and each applicable size of coarse aggregate.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Separate scale and weigh hopper for cementitious materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. All weigh hoppers freely suspended from scale and charge and discharge properly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Free moisture in aggregates taken into consideration when determining batch weights.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. Water Meter, Water Batcher, or Volumetric Measuring Tank</b>			
a. Device for measurement of added water capable of delivering required quantity within applicable tolerances and capable of dispensing in increments as small as one gallon (10lbs. if weighed).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Volumetric measuring tank equipped with a means to check calibration.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>7. Admixture Dispensers</b>			
a. Separate dispenser for each admixture.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Piping free of leaks and properly valved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Calibrated container for verifying accuracy of measurement.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Visual or gross check for batchman independent of operation of primary metering device.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. Batching System *See definitions below.</b>			
a. Batch System Type: Manual <input type="checkbox"/> Semi -Automated <input type="checkbox"/> Fully Automated <input checked="" type="checkbox"/>			
<b>9. Recording System (recording device which provides a permanent record of batch quantities for each batch of concrete produced.)</b>			
a. Recorders: Cementitious <input checked="" type="checkbox"/> Aggregate <input checked="" type="checkbox"/> Water <input checked="" type="checkbox"/> Admixtures <input checked="" type="checkbox"/>			
Recorders shall:			
b. Be properly protected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Provide for identifying the particular batch with the corresponding delivery ticket.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Register quantity of ingredients batched.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**TICKETING SYSTEM**

**10. Delivery ticket provides the following information**

	<u>ACCEPTABLE</u>	Not <u>ACCEPTABLE</u>	Not <u>APPLICABLE</u>
a. Ready-Mix Concrete Company's Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Plant number or designation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Ticket Serial Number	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Truck Number or designation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Purchaser Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Job name and location	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Specific class or designation of concrete mix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Batch size in cubic yard or meters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Date and time when batch was loaded	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Type and name of specialty admixture or ingredient and amount batched	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Place where extra water added at request of receiver of the concrete and his signature or initials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The referenced plant satisfies the indicated criteria and is capable of producing acceptable concrete. Yes  No

**Notes:**

1. Items 1a and 1b evaluated as follows: Aggregate stockpiles located to prevent contamination and arranged to assure that each aggregate as removed from its stockpile is distinct and not intermingled with others. Separate storage bins or compartments for each size and type of aggregate properly constructed and charges to prevent mixing of different sizes or types. Aggregates meet applicable specifications.
2. For information only; this item not required for approval of plant.
3. Applicable tolerances are consistent with information contained in the latest edition of *ASTM C 94 Standard Specifications for Ready Mixed Concrete*.

**Definitions:**

**Manual Systems** - Batching devices are operated manually. Individual batch target weights, moisture adjustments, and volumetric measuring systems are manually determined and verified by the batch operator. Discharge of the batch is performed manually by the batch operator. These systems are typically assisted by pneumatic, electric or hydraulic power, but may be hand operated.

**Semi-Automated Systems** - These systems provide mechanisms that start the weighing and volumetric measuring devices for the batch. These systems will stop the weighing and measuring upon attaining the required batch tolerances. Discharge of the batch may be automated upon attaining acceptable batch tolerances, or may be performed manually. These systems may or may not include interlocking mechanisms for out of tolerance batches.

**Fully Automated Systems** - A single starting mechanism provides target weights and volumes, begins the weighing and measuring process and ends this process when the targeted batch proportions are within tolerance. Out of tolerance batches must be manually adjusted to within tolerance and/or accepted by the batch operator. Once the batch tolerances are met or manually accepted, discharge of the batch will begin automatically.

**12. Verification of Inspection and Application for Certification (CONTINUED)**

The undersigned, a registered professional engineer in Arizona  
 (state, territory, or jurisdiction)  
 has conducted the inspection of the ready-mixed concrete plant described as Arizona Materials Flag East Plant - 5300 E. Empire, Flagstaff, AZ  
 (please print specific designation and location of plant)

and asserts, in his professional judgment, the information provided on this Check List is accurate and complete.  
 Application is hereby made for the issuance of a certificate for this plant, to be classified as follows:

<u>General Operation</u>	<u>Batching System</u>	<u>Recording (if any)</u>
<input checked="" type="checkbox"/> Truck Mixing	<input type="checkbox"/> Manual	<input checked="" type="checkbox"/> Cementitious
<input type="checkbox"/> Central Mixing	<input type="checkbox"/> Semi-Automated	<input checked="" type="checkbox"/> Aggregate
<input type="checkbox"/> Both	<input checked="" type="checkbox"/> Fully Automated	<input checked="" type="checkbox"/> Water
		<input checked="" type="checkbox"/> Admixtures

A Certificate of Conformance cannot be issued if any of the not acceptable boxes from **CONCRETE BATCH PLANT INSPECTION REPORT (pg 12 & 13)** are marked with an "X".

5/6/2011  
 (date)  
803858  
 (NRMCA ID number)  
 \_\_\_\_\_  
 (date)  
 \_\_\_\_\_  
 (Asst. to the Engineer  
 NRMCA ID number)

Donald L. Cornelison  
 (signature of engineer)  
Donald L. Cornelison  
 (name, please print)  
 \_\_\_\_\_  
 (signature of engineer's assistant)  
 \_\_\_\_\_  
 (name, please print)  
3331 E Wood St, Phoenix, AZ  
 (business address, please print)  
85040  
 (zip code)  
602-997-6391  
 (phone number)

