

Maryland Precast & Concrete Pipe Certification Program

PRE-INSPECTION REQUIREMENTS

In order for your plant to receive approval to produce precast drainage structures for the State Highway Administration (SHA) of Maryland or any of the subdivisions or other state agencies using SHA specifications, please make sure that your plant certification package contains the following necessary items:

1. **QUALITY CONTROL PLAN** (following the **NPCA Format**) in 2 hard cover binders; one for SHA files and one for your plant
2. Source list of all materials with addresses for: aggregates, cement, fly ash, additives, steel (Vendor List)
3. Concrete mix design(s) with weights for each material (use [SHA Concrete Mix Design Template](#) for submittal) (ZIP, 15 KB)
4. Mix design trial batch data or statistical evaluation of compressive strength history for the mix in question.
5. Certifications for cement w/ test results (**meets AASHTO M85 or ASTM C150 standards**)
Certifications for any pozzolans w/ test results (**Fly Ash - AASHTO M295 or ASTM C618-05**
Slag - AASHTO M302 grade 120, 100)
6. Certifications for scales and testing machines (**up to date calibration stamps**)
7. Certifications for coarse aggregate test results (**Conforms to AASHTO or ASTM standards**)
8. Certifications for fine aggregate test results (**AASHTO M6 or ASTM C33 standards**)
See approved aggregate list <http://www.roads.maryland.gov/OMT/AggBlt.pdf> (PDF, 1.5 MB)
9. Certifications for air entraining admixture(s) (**Conforms to AASHTO M154 or ASTM C260 standards**)
10. Certifications for concrete admixture(s) (**Conforms to AASHTO M194 or ASTM C494 standards**)
See approved admixture lists <http://www.roads.maryland.gov/Index.aspx?PageId=600>
11. Certifications for wire mesh reinforcement (**Conforms to AASHTO or ASTM standards**)
12. Certifications for deformed steel reinforcement (bars and rods) (**Conforms to AASHTO M31 or ASTM A615**)
13. Statement of source of water supply
14. Certification for form oil <http://www.roads.maryland.gov/OMT/formrelease.pdf> (PDF, 370 KB) and **directions for getting form oil approved:** <http://www.roads.maryland.gov/OMT/p-formrelease.pdf> (PDF, 90 KB)
15. A recent statement (= or < 2 yrs.) regarding each of your aggregate sources' susceptibility to **Alkali Silica-Reactivity** and, if susceptible, what expansion **showing test results (Using MSMT 212 testing method)**
16. A copy of your plant's statement that your products meet all SHA specifications as it will appear on your shipping documentation.
17. A copy of each **quality control stamp** as it will appear on the product accompanied by the **signature of the technician** to whom that stamp is assigned (Each quality control technician must be issued a unique stamp that only that individual shall be authorized to use.)
18. A sample copy of a typical shipping certification showing:
 - a. Name of the contractor
 - b. SHA contract number
 - c. Location
 - d. Structure type
 - e. Quantity shipped
 - f. Bid item number
 - g. Date cast
 - h. Date shipped
 - i. Stamp no. or copy of stamp.
 - j. QC technician's printed name and signature.
19. List of Q.C. personnel name(s) and a copy of each certification. (**QC personnel must have ACI-Level 1 NPCA Production & Quality School (PQS) Level I, or ACPA Q-Cast Certified Technician for pipe plants.**)

<p>Please send binder containing QC plan to: Christopher Gale Office of Materials Technology Assistant Division Chief, Concrete Technology Division 7450 Traffic Drive Hanover, MD 21074</p>

Please Note: Your plant should maintain separate file folders at your plant for each of the following:

- **NPCA records**
- Admixture Shipments
- Wire Mesh Certifications
- Steel Certifications
- Concrete test results: Slump, Air Temperature & Compressive Strength
- Q.C. pre-pour and post-pour checklists
- Cement Shipments