

# Maryland State Highway Administration

## Precast Plant

### Approval Requirements



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# Maryland State Highway Administration Precast Plant Approval Requirements

The following information provided below is for precast concrete producers who wish to have their plants certified to produce for the State Highway Administration.

## 1. Approval Process Requirements

All plants must be listed as pre-approved plants to be eligible to bid work for Maryland State Highway projects. If a plant is not on the approved list in the Materials Management System (MMS) the submitted source of supply request for that plant will be rejected.

Plants that receive approval are certified to produce precast concrete products for SHA for a period of one year. To remain on the approved list, a plant must undergo an annual inspections to maintain certification.

Plants must submit their Quality Control Plan for review and approval as per Maryland State Highway's Standard Specifications for Construction and Materials dated July 2008. See Standard Specification 915.05.01(c) page 738, under Certified Precast Concrete plants in the link below:

### **STANDARD SPECS. FOR CONSTRUCTION AND MATERIALS JULY 2008 BOOK**

<http://www.roads.maryland.gov/Index.aspx?PageId=44>

Once on the page, click on "Download File" to download the entire book.

### **SUPPLEMENTAL SPECIFICATIONS AND PROVISIONS JULY 2008 BOOK**

<http://www.roads.maryland.gov/pages/ssp.aspx?PageId=854&lid=SSPJUL2008>

Refer to the supplemental specifications link above for changes or additions to the 2008 book.

## **a. New Plants Requesting Certification**

### **SHA FACILITY INSPECTION COST REIMBURSEMENT**

The Maryland State Highway Administration (MSHA) Office of Materials Technology (OMT) has established a cost reimbursement schedule to recover expenses associated with certification of production facilities. Cost reimbursement for certifications will apply to producers that meet one of the following provisions:

- Producers seeking first time addition to MSHA's list of approved facilities
- Producers seeking recertification and have not supplied material to an active SHA contract within the past calendar year prior to the date of recertification
- Producers who may have supplied to an active SHA contract, but are no longer approved for an active SHA contract at the time of recertification

Accordingly if your production plant is seeking first time MSHA certification and/or re-certification and your production plant is not an approved source on an active MSHA Contract, please contact the MSHA, Concrete Technology Division, to schedule your facility's inspection; and receive instructions regarding cost reimbursement payment. The calendar year 2014 reimbursement cost for plant certifications or re-certifications are below, as well as a flow chart and general information regarding the certification/recertification process.

### **COST REIMBURSEMENT FEES**

<b>DRAINAGE PLANT</b>	<b>\$ 3,529.35</b>
<b>PIPE PLANT</b>	<b>\$ 3,433.39</b>
<b>PRESTRESS PLANT</b>	<b>\$ 3,529.35</b>
<b>NOISEWALL PLANT</b>	<b>\$ 3,159.47</b>
<b>RETAINING WALL PLANT</b>	<b>\$ 3,159.47</b>

**Facility certification will include:**

- **Correspondence and Documentation Review**
- **Physical Inspection of the Production Facility**
- **Material Sampling and Testing**
- **Any associated Concrete Mix Design Trial Batching**

The certification process will not begin until verification of payment is received from the MSHA Cashier's Office. If you wish to continue with the plant certification process, please complete the attached form and return it along with a Cashier's Check made payable to the Maryland State Highway Administration. The form and check should be mailed to the address on the following page (4):

**Maryland State Highway Administration  
c/o Cashier's Office  
211 E. Madison Street  
Baltimore, MD 21202**

Attention Cashier:

This payment covers the inspection costs for the approval of a plant for State Highway Administration use. Verification of payment is required before any inspection will be performed. All inspection will be done by the Office of Materials and Technology. Please send a copy of the paid receipt to Christopher Gale, Assistant Division Chief, Concrete Technology Division-Office of Materials Technology.

Company Name

Plant Location

Total Cost:

Account #:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

BW889M83 #  
or current SHA  
contract  
number

\_\_\_\_\_

Facility Inspection, Material Sampling and Testing, as well as any applicable Concrete Mix Design Trial Batching must be satisfied by SHA requirements before final certification is granted and State production commences.

It is the sole responsibility of the producer seeking facility certification, to submit any and all requested documentation required to complete the certification process. Failure to do so may impede final certification. SHA will not issue partial or temporary production facility certifications.

Your cooperation will be greatly appreciated. If you have any questions or need more information, please contact Mr. Christopher Gale, Assistant Division Chief of Field Operations, by email at [cgale@sha.state.md.us](mailto:cgale@sha.state.md.us) or by phone at 443-572-5154.

## **b. Currently Certified Plants**

All currently approved plants must submit a quality control plan each year if they plan to maintain certification. The form below on page 6 has a twenty item list that must be submitted in the plan. Once the quality control plan is submitted, it will be reviewed for compliance. Once the plan is found to be fully compliant, a plant inspection date will be scheduled.

# Maryland Precast & Concrete Pipe Certification Program

## PRE-INSPECTION REQUIREMENTS

In order for your plant to receive approval to produce precast 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**  
(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, and steel (Vendor List)
3. All Concrete mix design(s) with weights for each material (use **SHA Concrete Mix Design Template for submittal**)
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**)
6. **Slag-AASHTO M302 grade 120, 100**)
7. Certifications for scales and testing machines. (**up to date calibration stamps-annually**)
8. Certifications for coarse aggregate test results (**Conforms to AASHTO or ASTM standards**)
9. 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)**
10. Certifications for air entraining admixture(s) (**Conforms to AASHTO M154 or ASTM C260 standards**)
11. 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>**
12. Certifications for wire mesh reinforcement (**Conforms to AASHTO or ASTM standards**)
13. Certifications for deformed steel reinforcement (bars and rods) (**Conforms to AASHTO M31 or ASTM A615**)
14. Statement of source of water supply
15. 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)**

16. 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)**
17. A copy of your plant's statement that your products meet all SHA specifications as it will appear on your shipping documentation.
18. 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.)
19. 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.
20. 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.**)

**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

**Please send binder containing QC plan to:  
Christopher Gale  
Office of Materials Technology  
Assistant Division Chief, Concrete Technology  
Division  
7450 Traffic Drive  
Hanover, MD 21076**

## Approval Process Flow Chart

Open the attachment below to open the inspection process flow chart. This chart visually outlines the steps taken in the inspection process.

- [Precast QA Flow Chart \(PDF, 55 KB\)](#)

### **ANNUAL PRECAST PLANT CHECKLISTS**

These checklists are used by SHA inspectors during the inspection process:

- [Precast and Pipe Plant Checklists \(PDF, 155 KB\)](#)
- [Certification Paperwork Checklist \(PDF, 95 KB\)](#)
- [Precast Plant Approval Checklists \(PDF, 140 KB\)](#)
- [Precast & Concrete Pipe Pre-Inspection \(PDF, 35 KB\)](#)
- [Prestressed Plant Approval Checklists \(PDF, 140 KB\)](#)

### **PRECAST and PIPE PLANT CASHIER PAYMENT FORM** - Cost reimbursement form for:

- 1) Producers seeking first time addition to MSHA's list of approved facilities,
  - 2) Producers seeking recertification and have not supplied material to an active SHA contract within the past calendar year prior to the date of recertification
  - 3) Producers who may have supplied to an active SHA contract, but are no longer approved for an active SHA contract at the time of recertification
- [Cashier Payment Form \(PDF, 90 KB\)](#)

**CONCRETE MIX DESIGN TEMPLATE**- All precast plants must submit a mix design using the following format. Any change of material sources will require the plant to submit a new mix design and perform a trial batch before producing any material with the new design.

- [Concrete Mix Design Template \(MS Excel\) \(ZIP, 15 KB\)](#)

**REQUEST FOR DIRECT INSPECTION** - This form is required for **prestress and wall plants** that have a contract to produce for SHA. These plants require full-time direct inspection. This form must be submitted to [precast@sha.state.md.us](mailto:precast@sha.state.md.us) before production starts.

- [Request for Direct Inspection \(MS Word\) \(ZIP, 36 KB\)](#)

### **RECYCLED MATERIALS PRODUCTION-MONTHLY SUBMITTAL**

**REQUIREMENT**- All precast plants must submit a monthly production report at the end of each month for all Maryland items produced .It is required to be sent to the following email address: [precast@sha.state.md.us](mailto:precast@sha.state.md.us)

- [Recycled Materials Production - Monthly \(PDF, 115 KB\)](#)