

South Carolina Department of Transportation Temporary Concrete Barrier Producers

General: The SCDOT Office of Materials and Research will qualify producers of Temporary Concrete Barrier biennially. Qualification of a producer does not imply acceptance of the actual product; the SCDOT or its agents may reject barrier not meeting all applicable requirements.

Qualification Process:

- I. All barriers must undergo crash tests to determine if the barriers meet the requirements of NCHRP Report 350. Therefore, the SCDOT will not qualify a design without an acceptance letter from FHWA. Additionally, the FHWA letter does not guarantee or require SCDOT to accept the design. For questions or information pertaining to this matter, please contact Mr. Joe Sease at 803-737-1460.

- II. Prior to a site visit by an SCDOT inspector, the producer shall furnish the following information to the Structural Materials Engineer at the address given below:
 - A *brief* quality control plan listing at least the following items:
 - The person(s) responsible for issues involving material quality.
 - The physical location of the plant.
 - The expected frequency of compressive strength testing for concrete.
 - The material certification(s) to be received for steel and other items.
 - The type and location of retained quality documentation. It is expected that quality documentation will be retained for a period of at least 12 months after production.
 - A concrete mix design conforming to the requirements of the current SCDOT standard specifications for Class 3000 concrete. This mix design shall indicate the sources of supply for all materials and must use qualified sources for cement, other pozzolans (if applicable), and fine and coarse aggregates.
 - Compressive strength tests of concrete produced using the designated mix design from an AASHTO-accredited testing laboratory showing compressive strength results of at least 3000 psi.
 - Certification from the steel supplier(s) indicating that the steel items used in the barrier conform to the requirements shown on the plans.
 - A notarized certification from a company officer indicating that the barrier produced for this purpose will be made from qualified materials and conforms to all applicable requirements.

Once the information has been satisfactorily reviewed, an inspector from the SCDOT Office of Materials and Research will perform a site visit. The following items shall be provided for the inspector's review:

- At least two completed sections of barrier with all applicable markings (except qualification date and manufacturer code, if unassigned) joined as shown on the plans.
- A steel reinforcement assembly and other reinforcing items accessible for measurement and inspection.
- All forms. Forms must be clean of old concrete and serviceable.
- Any on-site concrete production facilities used to produce material for these barriers, if a qualified ready-mix producer does not produce the concrete. A qualified producer must supply ready-mixed concrete if provided from off-site.
- Any on-site laboratory facilities used to cure and test concrete strength specimens. Devices used for strength testing of cylinders must show evidence of current calibration.

Pending successful inspection, the SCDOT Structural Materials Engineer will inform the producer of his product's code and date of qualification and add the producer to the Qualified Product List for this item.

Revocation of Qualification: Subsequent to being qualified, if a supplier is found to have provided materials substantially not in conformance with the requirements for this item, the Department, at its sole discretion, may elect to remove the supplier from the qualified products list. Such revocation will not be given verbally and will only be in writing from the SCDOT Structural Materials Engineer. To regain qualification, the producer must reapply and indicate, in writing, the steps that have been taken to correct any problems that led to the revocation no sooner than 90 days after the date of revocation. The producer will further indicate what actions have been taken to prevent the problems from occurring in the future. Pending successful review and inspection, the producer will be returned to the current qualified product list.

Renewal of Qualification: Approximately 45 days prior to expiration, a producer may reapply to be qualified by providing the information listed above. In addition to the items listed above for inspection, the retained quality documentation from previous production shall be available for review by the SCDOT inspector, if requested.

Contact: All questions and correspondence regarding this policy should be directed to:

Aly Hussein, PhD, PE
Structural Materials Engineer
SCDOT Office of Materials and Research
P.O. Box 191
Columbia, SC 29202-0191
Phone: 803-737-6687
Fax: 803-737-6649
E-mail: husseinaa@scdot.org