

**Tennessee Department of Transportation
Division of Materials and Tests**

Ready Mix Concrete Plant Certification Procedures (SOP 4-3)

Purpose: The purpose of this document is to outline the process of certification of ready mix concrete plants providing concrete for State projects. The procedure also describes inspections that are performed at the beginning of projects. The purposes of these inspections, whether for certification or for projects, are to:

1. Standardize certification throughout the Regions
2. Improve concrete quality
3. Assure consistency of product
4. Support quality control
5. Assure adherence to TDOT specifications

This Standard Operating Procedure applies to ready mix plants in Tennessee and out-of-state that provide concrete for TDOT projects.

Discussion: Ready mix concrete suppliers must undergo a complete inspection of processes, plant equipment, trucks, laboratory equipment, materials, and technician qualifications. Inspections are required:

1. To become a qualified producer
2. At the beginning of projects
3. Annually

Procedure: The Producer must contact the Regional Materials and Tests as the inspections are carried out by Regional Materials and Tests personnel.

Plant Inspection: The Regional Inspector will visit the plant to check the overall condition of the plant and mixer; weighing devices; admixture dispensers; stockpile maintenance; bins; and evidence of laboratory inspection, process control plan, and aggregate quality testing. The results of the plant inspection are documented on [Form DT-1479, Ready Mix Concrete Plant Inspection Report](#). A blank Form DT-1479 and an example of the completed form are available at the Materials and Tests Forms web page.

Plant Laboratory Equipment Inspection: The Regional Inspector will check the laboratory equipment including weighing devices; stoves; sampling, reducing, and shaking equipment; thermometers; and other apparatus necessary to perform standard tests and practices. The inventory of equipment is documented on [Form DT-0309, Equipment Inspection for Concrete Plant Laboratories and Jobsites](#). A blank Form DT-0309 and an example of the completed form are available at the Materials and Tests Forms web page. Forms to document the calibration

results of testing equipment are found in **SOP 1-4 Laboratory Qualification Requirements**.

Concrete Truck Inspection: The Regional Inspector will inspect all available trucks for data plates, revolution counters, mixer-blade wear, water gauges, axle configuration, tare weight, and allowable gross weights. The inspection is documented on the [Concrete Truck Checklist](#). Attachment 1 shows a blank copy of the form for reproduction; an electronic copy is available at the Materials and Tests SOP web page.

Technician Qualifications: The plant shall have personnel certified according to **Standard Specifications 501.03 and 604.03. SOP 1-3 Field Technician Certification Requirements**. A list of certified technicians shall be available to the TDOT Inspector. Attachment 2 [Blank Certified Technician Form](#) shows a blank copy of the form for reproduction; an electronic copy is available at the Materials and Tests SOP web page.

Materials: All materials shall meet the requirements outlined in **SOP 4-4 Submittal and Approval of Concrete Mixture Designs**; the SOP is available at the Materials and Tests SOP web page. Attachment 3 shows a blank copy of the [Materials List](#) for reproduction that lists all constituent materials and admixtures; an electronic copy is available at the Materials and Tests SOP web page.

Process Control Plan: The Producer must develop a process control plan that outlines the steps or procedures that will ensure that the concrete meets TDOT Specifications. Attachment 4 shows an example of the [Process Control Plan](#) for reproduction; an electronic copy is available at the Materials and Tests SOP web page.

Process Control Inspection: On a regular basis, representatives from Headquarters, Materials and Tests and the Regional Materials and Tests will conduct inspections of the Process Control. Attachment 5 shows the [Process Control Inspection Checklist](#) and is available at the Materials and Tests SOP web page. On a regular basis, representatives from Headquarters, Materials and Tests and the Regional Materials and Tests will conduct and document inspections of the plant process control.

Documentation: Certain plant records must be kept and available for inspection. Attachment 6, [Concrete Plant Records Minimum Requirements](#), is a list of all required documentation. These documents will be reviewed during the process control inspections.

Certification: Upon completion and documentation of all inspections, the Regional Materials and Tests will list the ready mix producer as a Certified Producer on the Producer/Supplier List.