Standard Recommended Practice for

Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories

AASHTO Designation: R 18-16[1]
Release: Group 1 (April 2016)

AASHTO

American Association of State Highway and Transportation Officials
444 North Capitol Street N.W., Suite 249
Washington, D.C. 20001

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1. SCOPE

1.1. This document contains criteria and guidelines for establishing and implementing a quality management system (QMS) for use by a construction materials testing (CMT) laboratory.

1.2. The criteria in this document only apply to the following testing areas: soil, aggregate, asphalt binder, cutback asphalt, emulsified asphalt, asphalt mixtures, hydraulic cement, portland cement concrete, unit masonry, metals, plastic pipe, and sprayed fire-resistive material.

2. REFERENCED DOCUMENTS

2.1. *AASHTO Standards*:

- M 92, Wire-Cloth Sieves for Testing Purposes
- M 152M/M 152, Flow Table for Use in Tests of Hydraulic Cement
- R 28, Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel (PAV)
- R 59, Recovery of Asphalt Binder from Solution by Abson Method
- R 61, Establishing Requirements for Equipment Calibrations, Standardizations, and Checks
- R 68, Preparation of Asphalt Mixtures by Means of the Marshall Apparatus
- T 19M/T 19, Bulk Density ("Unit Weight") and Voids in Aggregate
- T 22, Compressive Strength of Cylindrical Concrete Specimens
- T 23, Making and Curing Concrete Test Specimens in the Field
- T 48, Flash and Fire Points by Cleveland Open Cup
- T 49, Penetration of Bituminous Materials
- T 50, Float Test for Bituminous Materials
- T 51, Ductility of Asphalt Materials
- T 53, Softening Point of Bitumen (Ring-and-Ball Apparatus)
- T 59, Emulsified Asphalts
- T 72, Saybolt Viscosity
- T 79, Flash Point with Tag Open-Cup Apparatus for Use with Material Having a Flash Point Less Than 93ºC (200ºF)
- T 84, Specific Gravity and Absorption of Fine Aggregate
- T 88, Particle Size Analysis of Soils
- T 89, Determining the Liquid Limit of Soils