2017 QSM Review Checklist

Firm: **NAME**

ITEM	YES	NO	REQUIREMENTS	COMMENTS
Current Org Chart & Policies	X	X	Indicates the line of authority from the QC testing technicians to the QC manager, ensures that QC testing technicians have the authority to require corrective action, and ensure that the QC manager is independent of production management and of equal status.	MEETS or List non-compliant portion
Quality Mission Statement			Describes the Manufacturer's mission and be endorsed by the Manufacturer's Chief Executive Officer.	
Position Descriptions			Describes the duties associated with each position included on the organization chart. These descriptions will also include the required skills, education, and experience associated with each specific position and indicate the supervision exercised and received.	
Quality Control Personnel Training and Competency Evaluation			Ensures that: ▪ Manufacturer's QC manager meets the requirements established by the Manufacturer; ▪ QC manager qualifies technicians performing QC testing; ▪ QC personnel are familiar with the tests they perform; and ▪ QC personnel have sufficient authority to assure that corrective actions are carried out when necessary. Describes the Manufacturer's QC technician qualification program. As a minimum the program will include: ▪ Training in the applicable AASHTO/ASTM Designation Standard(s), or Manufacturer test procedures, operation of equipment, the procedures to be used, calculations required, and reporting; ▪ Demonstration of competency in each required test; ▪ Demonstration of ability to properly document test results; ▪ Annual auditing of each technician's ability to satisfactorily perform the required tests; and ▪ Retraining when a test method is revised. Training and competency reviews documented in such a way that compliance with the requirements for the initial and updated training and the initial and annual competency reviews can be provided for each technician and for each test the technician performs. The documentation will include the date of the training or competency review and contain the hand-written signature or initials of the trainer/reviewer and the technician. This documentation will be retained, for a minimum period of 5 years, at each location where quality control testing occurs, and will be made available to NTPEP for review upon request.	
Customer Feedback			Describes the customer feedback system. This procedure will indicate the following: • What position(s) or employee(s) are responsible for customer feedback; • Methods used to solicit, evaluate and respond to customer feedback; • Conditions under which corrective action will be implemented.	
Internal Quality Audits of Each Facility Producing Product(s)			Includes a description of the procedures used to conduct internal audits.	

Management Reviews of Each Facility Producing Product(s)			Includes written procedures for performing management reviews. The procedures should indicate the following: ▪ What positions(s) or employee(s) are responsible for ensuring that management reviews are performed; ▪ The frequency, scope and criteria used for performing the management review(s); and ▪ Conditions under which corrective action will be implemented.	
Corrective Action Procedures			Includes procedures describing the actions taken when failures or nonconformities exist in any of the following areas: product, equipment, internal and external audits, and management reviews. These procedures should indicate what position(s) or employee(s) are responsible for implementing corrective action and the methods used to identify and implement corrective action(s).	
Sampling Plan for Quality Control and Quality Assurance			Includes procedures describing sampling for quality control and quality assurance. These procedures should include the following details: ▪ Number and frequency of samples taken; ▪ Sample selection process, including sampling required for retesting; ▪ The position(s) or employee(s) responsible for sampling; and ▪ Required sample preparation.	
Testing Plan for Quality Control and Quality Assurance			Includes procedures describing testing for quality control and quality assurance. These procedures should include the following details: ▪ Number of samples required for testing; ▪ Tests required to be performed; ▪ The position(s) or employee(s) responsible for testing; ▪ How test results are interpreted; ▪ The position(s) or employee(s) responsible for approving test results; and ▪ Criteria and procedures for retesting.	
Retesting Plan for Quality Control and Quality Assurance			Includes procedures describing retesting for quality control and quality assurance. These procedures should include the following details: ▪ When retesting is performed; ▪ Retest sampling requirements; ▪ Special retesting conditions; ▪ Criteria for acceptance of test results; and Instructions for reporting original test results and retest results.	
A List of Physical and Chemical Test Equipment			Includes a list(s) giving a general description of physical and chemical test equipment requiring standardization or checks. The following information will be included for each piece of equipment: ▪ Interval between standardization or check; ▪ Reference to standardization or check procedure; and ▪ Location of standardization or check record.	
Lab Equipment Plan for Calibrating and Verifying Equipment			Includes written procedures for ensuring that equipment calibrations and verifications are performed for all required equipment at the specified intervals (Ref.: Annex A.1). Where the referenced specifications do not state a calibration or verification frequency, a minimum of annually will apply. These procedures should indicate the following**:** ▪ Position(s) or employee(s) responsible for calibration and verification activities; ▪ Procedures for handling equipment which is newly acquired, removed from service, or does not meet accuracy requirements;	

			▪ In-house equipment calibration and verification procedures, when they cannot be referenced in applicable standards; and ▪ Certificates or other documents that establish traceability of in-house equipment or reference standards used for calibration and verification. ▪ Speed of testing for each type of load test: (1) in terms of free running crosshead speed (rate of movement of the crosshead of the testing machine when not under load), (2) in terms of rate of separation of the two heads of the testing machine under load, (3) in terms of rate of stressing the specimen, or (4) in terms of rate of straining the specimen.	
Recording and Maintaining Product Information and Test Results			Includes written procedures used to produce, check and amend test reports. These procedures should include the following details: ▪ Identify position(s) or employee(s) responsible for maintaining testing information; ▪ Describe distribution of testing information; ▪ Identify location of testing information; and ▪ Process for maintaining the above referenced information for a minimum period of 5 years and how they are made available to NTPEP for review.	
Handling Raw Material and Finished Product(s)			Includes a written procedure for documenting origin of materials. It will also include the records retention for all documentation (certifications, test reports, worksheets, etc.) associated with materials, testing, and inspections. NTPEP Committee Work Plans will list the minimum retention time, but where none is shown, 5 years will be required. *and where applicable:* The QMS will include a written procedure for documenting traceability of steel and iron materials to comply with "Buy America" requirements.	
Quality Control Inspection			Defines the quality control tests, the method for random sampling, the size of the sample, and the heat/lot/batch/etc. quantity for production facility quality control sampling and testing. The QMS will also include an example of a quality control test report form. The QMS will reference the applicable AASHTO/ASTM Designation Standard(s), or in house procedures and calibrations. The QMS will describe any Manufacturer procedure used. Includes a description of the Manufacturer's statistical process control plan. The plan will use methods such as statistical control charts to monitor production facility quality control test results for the purpose of identifying trends and being able to make production adjustments as necessary. The plan will monitor each production plant separately and total Manufacturer product quality trends. Ensures that: ▪ Each sample selected for quality control inspection and testing is designated with a sample control number for record keeping and traceability; ▪ The test report for each sample identifies the plant, date, and heat/lot/batch/etc. designation; and ▪ Quality control test reports are maintained and available for review for 5 years. Ensures that QC testing facility:	

			▪ Maintains current versions of all applicable AASHTO/ASTM Designation Standard(s), and Company test procedures for all tests performed and a current version of the Company's QMS documentation; ▪ Adequately houses and allows proper operation of all required testing equipment; and ▪ Maintains records of all NTPEP reviews and actions taken to resolve any noted deficiencies. ▪ Performs calibrations and verifications on testing equipment in accordance with the Manufacturer's recommendations, but at least at the specified intervals (Ref.: Annex A.1). These activities will be performed by the individuals who routinely use the equipment and are familiar with its use or by technicians of an accredited calibration/verification facility familiar with the equipment. Describes in detail the requirements for the QC test facility(ies) and includes, as a minimum, a description of how the Manufacturer will cover QC responsibilities at all times, including when the QC Manager is away from the plant for any reason.	
Labeling and Storage of Finished Product(s)			Includes a written procedure describing how finished product is labeled, packaged and stored. It will also include an explanation of the product markings used by the Manufacturer.	
Control of Nonconforming Product(s)			Includes written procedures describing the actions to take when product does not conform to the specification requirements. These procedures should include the following details: ▪ What position(s) or employee(s) is responsible for making decisions related to nonconforming product; ▪ How nonconforming product is identified, labeled and segregated; ▪ What happens in the event it is shipped; ▪ What is done with the nonconforming product; ▪ Who is responsible for taking corrective action ▪ How test reports clearly identify the deficiencies; ▪ How products produced subsequent to the previous testing, are identified and quarantined pending investigation of the failure; and ▪ The process for obtaining and testing check samples.	