
Standard Recommended Procedure for

Qualification of Deformed and Plain Steel Bar Producing Mills



AASHTO Designation: PP 45-07^{1,2}

1. SCOPE

- 1.1 This recommended procedure shall apply to all producing mills that supply deformed and plain steel reinforcement bars for use on State Transportation Agency projects.
- 1.2 The initial qualification and all subsequent qualifications of the producing mill's quality system and compliance testing will be in accordance with the procedure outlined herein.

2. REFERENCED DOCUMENTS

- 2.1 *AASHTO Standards:*
- M 31M/M 31, Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
 - M 227M/M 227, Steel Bars, Carbon, Merchant Quality, Mechanical Properties
 - M 322M/M 322, Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement
 - R 18, Establishing and Implementing a Quality System for Construction Materials Testing Laboratories
- 2.2 *ASTM Standards:*
- A 615, Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
 - A 706/A 706M, Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
 - A 880-95, Criteria for Use in Evaluation of Testing Laboratories and Organizations for Examination and Inspection of Steel, Stainless Steel, and Related Alloys
 - A 996/A 996M, Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement

3. TERMINOLOGY

- 3.1 *compliance testing*—testing performed in accordance with referenced AASHTO and ASTM standards and/or test methods.
- 3.2 *documented quality system*—the producing mill shall maintain documentation of their quality system by use of a Quality Manual (QM).
- 3.3 *nonconformance*—not meeting the requirements of this specification.
- 3.4 *producing mills (deformed and plain steel bars)*—location where steel billets, rail-steel, and axle-steel are heated and rolled into the finished steel bar product.

- 3.5 *test report*—information (test values, chemical analysis, etc.) as required by the referenced specification and contained in a report form generated by the producing mill. Origin of materials (steel billets, rail-steel, and axle-steel) used to roll the bars is also shown on this report.
- 3.6 *qualification agency*—The entity who performs this qualification procedure at the producing mill. AASHTO’s National Transportation Product Evaluation Program’s (NTPEP) Project Panel on Reinforcing Steel is responsible for oversight of the program and securing the services of the qualification agency.

4. PURPOSE

- 4.1 This document establishes a uniform procedure for the qualification of producing mills that supply deformed and plain steel reinforcement bars for use on State Transportation Agency projects.
- 4.2 This document describes the procedures and conditions for producing mill qualification.

5. QUALIFICATION PROCEDURE

- 5.1 *General*—Qualification shall be based on satisfactory compliance to an audit of:
- 5.1.1 The producing mill’s Documented Quality System, and
- 5.1.2 Compliance testing.
- Note 1**—Subsequent qualifications of producing mills that have demonstrated compliance to a recognized international/national quality program may have the Documented Quality System audit waived. In such cases, compliance testing will be the focus of qualification.
- 5.2 *Application:*
- 5.2.1 The producing mill shall submit a request for attaining mill qualification to the Qualification Agency.
- 5.2.2 Upon receipt of the request, the qualifying agency shall furnish the producing mill a copy of the application form. The completed application form shall be submitted to the Qualification Agency along with a copy of the mill’s Quality Manual (QM), meeting the requirements of R 18, Section 6. Frequency of calibration shall be on an annual basis. Other formats for the QM may be acceptable after review and acceptance by the Qualification Agency.
- 5.2.3 After receipt of the application form, the Qualification Agency shall arrange to perform an on-site audit of the applying producing mill’s facility.
- 5.3 *Quality System Audit:*
- 5.3.1 The Qualification Agency shall use an approved standardized audit checklist and verify compliance with the procedures outlined in the producing mill’s Documented Quality System.
- 5.4 *Compliance Testing:*
- 5.4.1 Compliance testing will be performed on product manufactured by the producing mill using the producing mill’s testing equipment. Calibration of testing equipment shall be current at the time of