

SSPC: The Society for Protective Coatings

Qualification Procedure No. 8

Standard Procedure for Evaluating the Qualifications of Contracting Firms That Install Polymer Coatings and Surfacing on Concrete and Other Cementitious Substrates

1. Scope

1.1 This procedure describes a method for evaluating the qualifications of a contractor who installs polymer coatings or surfacings on concrete and other cementitious surfaces, and defines a minimum standard for qualification. Examples of other cementitious surfaces are:

- Horizontal traffic-bearing concrete
- Non-traffic bearing concrete
- Cement masonry unit (CMU) construction
- Parged and cement plastered surfaces, including stucco
- Previously painted cementitious surfaces

1.2 The objective of this procedure is to determine if a polymer coating or surfacing contractor has the management procedures; technical knowledge; quality control procedures; personnel qualifications; and safety, health and environmental compliance programs to properly perform substrate evaluation, repair, and treatment; surface preparation; and installation of coatings and surfacings over concrete-based substrates while meeting the conditions and restrictions specified by the owner.

1.3 The procedure encompasses assessment of knowledge to perform polymer coating or surfacing installation on concrete or cementitious substrates in commercial, institutional, and industrial facilities and structures.

1.4 Meeting the requirements of this procedure does not guarantee the performance of applied materials, individual workers, or individual companies.

2. Description

2.1 DEFINITIONS

Contractor: An individual or firm who provides surface preparation and concrete coating or surfacing installation services in the industrial, institutional, and commercial markets.

Auditor: 1) The person or persons who perform audits on behalf of the auditing agency or qualifying agency. 2) The body possessing the necessary technical competence to review contractor submittals, conduct on-site audits of applicants, and report results to the qualifying agency in compliance with the requirements of this procedure and the written requirements of the formal audit program.

Qualifying Agency: The body responsible for development, maintenance, sponsorship, and operation of a program to ensure uniform compliance with the provisions of this standard procedure.

Qualification: The procedure by which written assurance is given that an applicant conforms to the prescribed set of conditions or requirements of this standard procedure.

Procedure: The sequence of steps taken to carry out a particular course of action.

Surfacing: A resinous floor coating with a film thickness greater than 20 mils (500 μm). Thick film (greater than 20 mils [500 μm]) systems, self-leveling systems, slurry systems, broadcast systems, mortar systems, fabric-reinforced

systems, spray-applied systems, non-waterproofing membranes, and underlayment membranes are all considered surfacings.

Planarity: The general evenness of a substrate in an intended dimension. Planarity must not be confused with levelness. A sloped area, for example, is "in plane," without low or high spots, but is not level.

Sloping Correction: 1) An adjustment applied to a distance measured on a slope to reduce it to a horizontal distance between the vertical lines through its end points. 2) The process of installing a given pitch to a surface.

2.2 FUNCTIONS TO BE EVALUATED: The procedure identifies five function areas to be evaluated:

- Management procedures,
- Technical knowledge,
- Quality control procedures,
- Personnel qualifications, and
- Safety, health, and environmental compliance programs, including proper handling and disposal of hazardous waste.

General requirements for each of these function areas are presented in Section 4.

2.3 EVALUATION PLANNING: The qualifying agency must develop criteria and rating plans to evaluate each contractor against this standard, and to determine which of the specific critical items within the five function areas are to be evaluated. The sequence of steps for conducting an evaluation is outlined in Section 5. All evaluations will be performed by the auditor.

3. References

3.1 The latest issue, revision, or amendment of the referenced standards in effect at the time shall govern, unless otherwise specified.

3.2 If there is a conflict between the requirements of any of the cited reference standards and this qualification procedure, the requirements of this qualification procedure shall prevail.

3.3 SSPC STANDARDS:

Guide 7 Guide for the Disposal of Lead-Contaminated Surface Preparation Debris

QP 1 Standard Procedure for Evaluating Qualifications of Painting Contractors (Field Application to Complex Industrial Structures)

QP 2 Standard Procedure for Evaluating the Qualifications of Painting Contractors to Remove Hazardous Paint

3.4 FEDERAL SPECIFICATIONS AND STANDARDS:¹ Code of Federal Regulations (CFR)

40 CFR 260 Hazardous Waste Management System: General
40 CFR 261 Identification and Listing of Hazardous Waste
40 CFR 262 Standards Applicable to Generators of Hazardous Waste
40 CFR 263 Standards Applicable to Transporters of Hazardous Waste
40 CFR 268 Land Disposal Restrictions

3.5 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARDS:²

ASTM D 6237 Standard Guide for Painting Inspectors (Concrete and Masonry Substrates)

4. General Qualification Requirements

4.1 MANAGEMENT PROCEDURES: The applicant must demonstrate adequate procedures for disseminating company policy and for personnel, administrative, and financial management as follows:

4.1.1 Contractor Policy: The contractor shall have:

- a. Written policies on quality, safety, health, and environmental compliance; and
- b. Written procedures for disseminating company policies to personnel.

4.1.2 Organization and Personnel: The contractor shall have:

- a. An organizational chart showing division of responsibility within the company
- b. A list of names, titles, duties, and job descriptions for key personnel (executive management, technical management, quality control supervisors, safety, health, and environmental compliance management). Each job description shall state the expe-

¹ Available from <http://www.access.gpo.gov/nara.cfr>, or from local US Government Printing Offices.

² ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Available online from <http://www.astm.org>.

rience, licenses, certifications, and training and refresher courses required for each position.

4.1.3 Administrative and Management Procedures:

The contractor shall provide:

- a. A brief written description of the contractor's method of financial record keeping;
- b. Procedures used for contract estimating and scheduling, and for keeping track of job costs;
- c. Procedures used to review specifications and other bid documents;
- d. Formal procedures for complying with current federal, state, and local environmental, health, and safety regulations; and
- e. Procedures for evaluating each job function for determination of specialized training and/or experience requirements.

4.2 TECHNICAL KNOWLEDGE: The contractor shall have adequate technical resources, suitable job conversion procedures, and appropriate equipment to perform the work. The contractor shall provide the following:

4.2.2 Technical Resources:

- a. A list of technical societies, trade associations, or other industry groups (e.g., universities, major manufacturers, consultants) that address polymer coating or surfacing of substrates with which the contractor is associated. Current membership certificates or correspondence shall be maintained to verify the affiliation.
- b. Verification that the company maintains a library of current SSPC, American Concrete Institute (ACI), National Fire Protection Association (NFPA), International Concrete Repair Institute (ICRI), American Society for Testing and Materials (ASTM), NACE International, and other technical standards appropriate for the types of polymer coating or surfacing systems installed (see Note 7.1).

4.3 Procedures: The contractor shall provide formal procedures that are used to convert job specifications into field work orders, job plans, etc., including procedures for:

- a. Logging receipt of specifications and revisions and recording who gets copies, as well as removing obsolete or superseded documents from active files;
- b. Documenting communication that notes exceptions to specifications or other clarifications;
- c. Communicating specification requirements to work crews; and

- d. Communicating safe working condition and environmental requirements on a per-project basis.

At a minimum, the contractor must have standard company procedures, based on documented good installation practices or existing industry standards, for the following:

- a. Repair of deficient concrete substrate conditions such as: loose and delaminated concrete sections including reinforcing steel removal and replacement; spall and pop-out repairs; sloping and re-sloping for drainage or elevation correction; cracks (both moving and non-moving); substrate surface correction, including grinding and filling to achieve proper planarity and substrate smoothness.
- b. Pretreatment of substrate, including removal of contaminants such as grease, oil, form release agents, laitance, and efflorescence;
- c. Surface preparation methods such as shot blasting, acid etching, abrasive blasting, waterjetting, detergent and steam cleaning, hand and power tool abrasion, wire brushing, vacuum cleaning, and compressed air cleaning;
- d. Testing for contamination after surface preparation;
- e. Evaluating surface profile after surface preparation;
- f. Testing for moisture in concrete;
- g. Testing for measuring moisture vapor emission rate;
- h. Proper storage, mixing, and thinning of coating and surfacing materials;
- i. Procedures for various installation methods (e.g., brush, roll, rake, squeegee, screed box, spray methods, trowel, power trowel);
- j. Procedures to avoid contaminating the coating or surface during installation (e.g. requiring installers to wear spikes when working on thick film areas, wearing clean, disposable shoe covers when working over cured surfaces to receive subsequent coats);
- k. Jobsite measuring of polymer coating or surfacing viscosity prior to application, as required;
- l. Testing of applied coating or surfacing for cure, thickness, holidays, adhesion, and static dissipation as applicable;
- m. Procedures for proper cleaning of tools after installation;
- n. Procedure for disposal of excess materials, containers, and cleaning materials;
- o. Procedures for maintaining acceptable and safe working conditions such as temperature control, air movement, illumination of area; and
- p. Procedures for curing applied coating systems.