

SSPC: The Society for Protective Coatings

Qualification Procedure No. 5

Standard Procedure for Evaluating the Qualifications of Coating and Lining Inspection Companies

1. Scope

1.1 This standard describes a method for evaluating the qualifications of coating and lining inspection companies who perform quality control or quality assurance inspection of coatings and linings applied over steel or cementitious substrates.

1.2 The purpose of this procedure is to determine whether a coating inspection company has a corporate organization that clearly defines the authority and responsibilities of positions typically required for operation of a Coating Inspection Company; employs qualified management and inspection personnel; has established and implemented a viable quality management system; and has knowledge of industry technical standards and inspection practices.

2. Definitions

Auditor: 1) The person or persons performing audits on behalf of the qualifying agency. 2) The person(s) possessing the necessary technical and quality system auditing skills to review coating and lining inspection company submittals, conduct on-site audits of applicants, and report findings to the qualifying agency's program administrator in compliance with the requirements of this procedure and the written requirements of the formal audit program.

Auditing Agency: The body that possesses the necessary technical competence to review applicant submittals, conduct on-site audits of applicants, and report results to the qualifying agency for compliance with this procedure's requirements.

Calibration: The set of operations that establish, under specified conditions, the relationship between values indicated by a measuring instrument and the corresponding known values of a measurement.

Coating: A liquid, liquefiable, mastic, powder composition or thermally applied metal that is converted to a solid protective, decorative, or functional adherent film after application as a thin layer. Polymer surfacings on concrete substrates are also considered coatings.

Coating and Lining Inspection Company (hereafter "Coating Inspection Company"): An independent company that is not involved in the manufacture of coating materials or coating application equipment, or the application process, whose primary function is to inspect the application process and the quality of the applied film.

Inspection: Confirmation by examination and provision of evidence that specified requirements have been met. The examination and determination of conformity with specific requirements on the basis of professional judgment, and general requirements according to published industry standards, as required in each project specification.

Lining: A material used to protect the interior of a container against corrosion or to protect the contents of the container from contamination by the container shell material. Sprayable linings, sheet liners, and drop-in liners can be used to accomplish these purposes.

Qualifying Agency: An organization (e.g., certifying agency or facility owner) responsible for sponsorship or operation of a program to ensure uniform compliance with the provisions of a standard.

Quality Management System: The organizational structure, responsibilities, procedures, processes and resources for implementing quality management. Typically includes a quality manual and standard operating procedures.

Test: A technical operation that consists of the determination of one or more characteristics or performance of a given product, material, equipment, physical phenomenon, process or service, according to a specified procedure.

Test Method: A definitive, standardized set of instructions for the identification, measurement, or evaluation of one or more qualities, characteristics, or properties of a material.

Verification: Confirmation by examination and provision of evidence that specified requirements have been met.

3. Qualification Requirements

3.1 Organization

3.1.1 The Coating Inspection Company shall be legally identifiable (e.g., a corporation, proprietorship, partnership, etc.) based on the laws where the business is located.

3.1.2 The Coating Inspection Company shall:

- a. Demonstrate that managerial staff has the necessary expertise, responsibility, authority and resources to review and verify work performed by field personnel by supplying (1) an organizational chart clearly showing lines of authority within the company, (2) written documentation of training and experience

of managerial staff to perform assigned duties, and
(3) written evidence that management periodically reviews work performed by its field personnel to verify compliance with project specifications and other contract requirements.

- b. Be organized in such a way that confidence in its independence of judgment and integrity is maintained at all times.

3.2 Quality Management System and Standard Operating Procedures

3.2.1 The Coating Inspection Company shall establish and maintain a quality management system appropriate to the type, range and volume of inspection activities it undertakes. The elements of this system shall be documented. The quality management system and standard operating procedures shall be available for use by Coating Inspection Company personnel. The Coating Inspection Company shall define and document its procedures and policies for and its commitment to meet requirements. The Coating Inspection Company management shall ensure that these policies and objectives are documented in a quality manual and communicated to, understood by, and implemented by all Coating Inspection Company personnel. The quality manual shall be current and the quality manager shall be responsible for maintaining it.

3.2.2 All standard operating procedures, instructions, standards, manuals and reference data relevant to the work of the Coating Inspection Company shall be up-to-date and readily available to management and inspection personnel.

3.3 In order to meet the requirements of this qualification procedure, the quality manual shall include the following:

3.3.1 A quality policy statement, including objectives and commitments, by top management.

3.3.2 The organization and management structure of the Coating Inspection Company, and its place in any parent organization and relevant organizational charts.

3.3.3 Roles and responsibilities and job descriptions of key staff.

3.3.4 Procedures for control (including distribution) and maintenance of quality documents and control of records (including retention periods).

3.3.4.1 The Coating Inspection Company shall maintain a record system to suit its particular circumstance and comply with any applicable regulations. It shall retain on record all original observations, calculations and derived data, calibration records and a copy of the calibration certificate, or inspection report, for an appropriate period. The records for each inspection and test shall contain sufficient information to permit their repetition. The records shall include the identity of personnel involved in sampling, preparation, inspection or testing.

3.3.4.2 All records (including those pertaining to calibration and test equipment), certificates and reports shall be safely stored, held secure and in confidence to the client.

3.3.5 Identification of the Coating Inspection Company's approved signatories (where this concept is appropriate).

3.3.6 The Coating Inspection Company's procedures for achieving traceability of measurements.

3.3.7 The Coating Inspection Company's standard operating procedures for typical inspections and tests. (The precise scope of an inspection will be determined by the terms of the individual contract or work order.) Inspection and testing standard operating procedures shall contain appropriate and clear reference to the applicable standards and test procedures to be used.

3.3.8 Procedures for calibration and control of equipment including references to any inspection equipment used, calibration process and frequency and use of traceable references to standards used for calibration.

3.3.9 Procedures for reporting nonconformances whenever inspections or testing discrepancies of contractor's work is detected and tracking completion of corrective actions, if applicable.

3.3.10 Procedures for tracking, reporting, documenting and verifying corrective action of internal deviations from quality manual and standard operating procedures.

3.3.11 Procedures for receiving, assessing, documenting and responding to client complaints, including any corrective actions taken.

3.3.12 Procedures for internal auditing (see Section 7).

3.3.13 Procedures for confidentiality of clients' information and proprietary rights.

3.3.14 Procedures for periodic verification of inspection and testing through supervisory review of inspection reports, duplicative inspections or testing, verification of equipment operation or internal or external audits.

3.3.15 Procedures for qualifications and training of inspection staff, auditors, supervisory personnel and technical and quality managers.

3.3.16 In addition to periodic internal audits the inspection company shall ensure the quality of results provided to clients by implementing periodic checks. These checks shall be reviewed by the president or CEO who shall verify in writing the following:

- a. Participation in proficiency testing or other qualification programs, employing, whenever possible, statistical analysis techniques.



- b. Use of certified reference materials or in-house quality control using secondary reference materials
- c. Replica inspection or testing.
- d. Supervisory review of inspection results

3.4 Standard Operating Procedures

3.4.1 The Coating Inspection Company shall give evidence of standard operating procedures for ensuring quality of inspection and support activities as follows:

3.4.2 Inspection procedures and recording systems.

3.4.3 Procedures for receipt of specifications and revisions.

3.4.4 Records of standards and specifications or coating inspection work records and their utilization.

3.4.5 System for filing, distribution, storing and retrieving of inspection reports.

3.4.6 Availability of inspection equipment and calibration standards and procedures.

3.4.7 Procedures to ensure that each major significant activity (e.g., surface preparation, coating application, and curing of primer, intermediate and topcoat application) is inspected and documented.

3.4.8 Procedure for identifying the structure or equipment to be inspected or tested, to ensure that there can be no confusion regarding the identity of such items at any time.

3.4.9 The Coating Inspection Company shall use appropriate methods and standard operating procedures for all inspections, tests and related activities within its responsibility (including sampling, handling, transport and storage, and analysis of inspection or test data). The methods and procedures shall be consistent with the accuracy required, and with any standard specifications relevant to the inspections or tests concerned.

3.4.10 Where methods are not specified, the Coating Inspection Company shall, wherever possible, select methods that have been published in nationally recognized standards, such as those published by reputable technical organizations (e.g., SSPC, NACE, ASTM) or in relevant scientific texts or journals.

3.4.11 Where it is necessary to employ methods that have not been established as standard, these shall be subject to agreement with the client and coating manufacturer, be fully documented and validated, and be available to the client and other recipients of the reports.

3.4.12 Where sampling is carried out as part of the test method, the Coating Inspection Company shall use

documented procedures and appropriate statistical techniques to select samples.

3.4.13 Calculations and data transfers shall be subject to appropriate checks.

3.5 Executive Management Review: The quality management system adopted to satisfy the requirements of this standard procedure shall be reviewed at least once a year and the review shall be documented in writing by the management to ensure its continuing suitability and effectiveness and to introduce any necessary changes or improvements.

4. Certificates and Reports

4.1 The results of each inspection, test, or series of inspections or tests carried out by the Coating Inspection Company shall be recorded in a written report accurately and objectively, in accordance with any instructions in the inspection or test methods. The results shall be recorded in a report and shall include all the information necessary for the interpretation of the inspection or test results and all information required by the method used.

4.2 Each report shall include at least the following information:

- a. A descriptive title.
- b. Name and address of Coating Inspection Company, and location where the inspection was carried out.
- c. Identification of the instrumentation (such as serial number).
- d. Name and address of client.
- e. Name and address of coating application company
- f. Description and clear identification of the structure or equipment inspected.
- g. Description of the test area and results of the inspection or test.
- h. Date of inspection.
- i. Identification of the inspection or test method used, or clear description of any non-standard method used.
- j. Reference to sampling procedure, where relevant.
- k. Any deviations from, additions to or exclusions from the inspection or test method, and any other information relevant to a specific inspection or test, such as environmental conditions.
- l. Measurements, examinations and derived results, supported by tables, graphs, sketches and photographs as appropriate, and any failures identified.
- m. A signature and title, or an equivalent identification of the persons accepting responsibility for the content of the report and date of issue.
- n. Where relevant, a statement to the effect that the results relate only to the items inspected or tested.
- o. A statement that the report shall not be reproduced except in full, without the written approval of the Coating Inspection Company.