



**QS1**

**Advanced Quality Management System (QMS) Certification  
Program for Industrial and Marine Painting Contractors**

**Application Form, Instructions, and Program Rules**

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## **I. Scope**

In order to apply and attain QS1 certification, you must already be QP1, QP3, QP6 or QP8 certified. SSPC has developed the QS1 Program to set a higher standard of practice for the QP1, QP3, QP6, and QP8 Contractor to demonstrate an Advanced Quality Management System (QMS). SSPC accomplishes this by independently auditing your company to confirm compliance with QS1 based on the evaluation criteria described herein.

## **II. Qualification Categories**

### **A. Interim Qualification**

Interim qualification is designed for those firms who have not had the opportunity to implement a QS1 Quality Program for an actual coating project. To qualify for QS1 Interim Certification, SSPC will conduct a thorough audit of your quality management system to verify conformance. If your company meets the qualification requirements, SSPC will issue a one-time Interim Qualification, valid for up to 24 months from the date of the audit. To advance to "Full Qualification", you will need to notify the SSPC Certification Manager within 15 working days of receiving any contract award requiring QS1 or an equivalent quality program in order to request that SSPC audit the jobsite to confirm field implementation.

### **B. Full Qualification**

Upon notification of a contract award requiring implementation of QS1 or an equivalent quality program, SSPC will, at your expense, visit at least one jobsite or audit the quality records of a project where the QS1 quality management system has been fully implemented to verify conformance with QS1. The audit will include examination of records and interviews with management and supervisory personnel and some subordinate employees about specific technical and quality monitoring procedures, training, and inspection operations you conduct. If deemed necessary by SSPC, we may visit both your office and job site. Upon successful completion of the audit, SSPC will grant Full QS1 Qualification subject to renewal annually.

In all instances, SSPC will conduct the audit in accordance with the requirements of SSPC Quality System No.1.

**"Standard Procedure for Evaluating a Quality Standard for Contractors that Apply Protective Coatings and Linings."**

## **III. General Procedures for Contractors Applying for QS1 Certification**

The QS1 Certification Program contains a sequence of procedures listed below that you need to follow:

- Complete the Application Form (page 4).
- Gather and prepare the required submittal information (pages 5 & 12).
- Submit the four (4) items of information identified by an asterisk (\*).
- SSPC Staff will review the application and submittals within 15 working days of receipt. If everything is in order, an on-site audit will be scheduled and conducted in conjunction with another QP Certification audit you may require when this is feasible. Upon review of your application and submittals, SSPC will notify you whether any additional requirements, or additional information is required to complete the application process.
- All non-public information submitted is treated as confidential (the original submittal is filed at SSPC and the copy is given to the auditor that will be assigned to conduct the audit).
- The on-site evaluation will be conducted by an SSPC auditor at your primary place(s) of business, or a division office and a job site, if applicable, in conformity with the SSPC QS1 Auditor Checklist, normally requiring a one-half to one day to complete.

At the conclusion of the audit, the auditor will schedule an Exit Interview with an authorized member of management, for the purpose of discussing the audit findings. If there are findings, a member of management is required to sign a Deficiency / Corrective Action / Verification Schedule acknowledging notification of the findings, in order to complete the audit. If you achieve a qualifying score, your company will be certified for one year, renewable each year thereafter. If your company does not qualify, you will have 45 calendar days after notification of audit findings to develop a written Corrective Action Plan (CAP), acceptable to SSPC, and request re-evaluation. If a CAP is not submitted to SSPC for acceptance within the 45 day period, your company will be required to re-apply for Initial QS1 Certification. QS1 provides appeal procedures should you contest audit findings. See Page 14 for further information.

Note: Be aware that since there is overlap between QS1 and QP1, QS1 audit findings could have an impact on your QP1 program status.

## IV. QS1 Application Form (Advanced Quality Management System)

*This application form is used to provide information that will aid in evaluating and rating your quality management system. To avoid delays, all responses must be complete and accurate. Information can be either typed or clearly printed, in ink. Please send **the original and one copy** of this application form and all required submittals listed on Page 12 and the appropriate fee to SSPC.*

Company Name: \_\_\_\_\_  
QMS Manager Name: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Email address: \_\_\_\_\_

Check the one that you are applying for:

Full Qualification  Interim Qualification

Certification fee/audit deposit submitted with this application: \$ \_\_\_\_\_

List other types of company certifications you hold: \_\_\_\_\_

Is the address listed above the main office where the QMS is managed?

Yes  No If no, please explain below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Note:** SSPC reserves the right to audit any independent office operating under the name listed above. Additional fees will be assessed for time and travel expenses required to audit other offices located outside the continental United States.

Failure to report accurate and complete information will delay certification evaluation. Deliberate omissions or falsification of information will result in withholding of certification for a minimum of 6 months.

SSPC recommends that prior to being audited by SSPC for QS1 qualification, you conduct an informal internal audit using the QS1 auditor checklist available at: <http://www.sspc.org/qp-programs/qp-programs-home/> to assess your readiness for the SSPC audit.

By my signature below, I acknowledge that I have read and understand the QS1, Advanced Quality Management System Certification Program Application Form, Instructions, and Program Rules, the procedures set forth therein, and any Disciplinary Action Criteria in effect. As a principal officer, I agree to abide and be bound by the rules, regulations, and procedures set forth herein.

\_\_\_\_\_  
Signature (President, CEO, COO, RE or TQM)      Print Name      Date

## **V. QS1 Evaluation Checklist (Advanced Quality Management System)**

The following is a list of audit evaluation items that the auditor will review and rate during your SSPC - QS1 initial and annual maintenance audits. Information listed here *in bold type* and preceded by an asterisk (\*) must be submitted with the application and accepted by SSPC prior to audit scheduling. All non - submittal items listed below are subject to being demonstrated to the Auditor during the audit. Records or files to be made available to the Auditor include, but are not limited to; evidence of quality system implementation; descriptions of the organization and management structure; company personnel; equipment used and equipment reference materials; measurement of traceability and calibration and calibration verification; QS personnel duties; QMS methods and practices; traceability of records and reports; certificates and reports; sub-contracting practices; outside support and services used; and your complaint handling procedure. The Auditor may choose to interview selected QMS and management personnel.

### **A. Quality Control Manual**

- You must have written Quality Control Manual (QCM).
- The QCM must contain written procedures that are communicated and followed by all affected personnel.

#### **1. \* Submittal Item (QC Manual Contents):**

- A. The written quality manual must clearly state company policies and operational procedures for all QM Activities. It should follow ANSI Q 100013 guidelines for developing quality manuals and at a minimum forms and procedures shall contain; title and Identification; date of issuance; issuer's name and title; approval signature; revision update; numbering system; identification of controlled and uncontrolled documentation.
- B. At a minimum, the quality control manual shall contain:
  - A Quality Policy statement, (signed and dated) by executive management.
  - A current organization chart, (signed and dated) by management, matching the management structure of the QM Function (group, division department, etc.) and its place in any parent organization.
  - The reporting relationship among management, technical operations, support services, and the QM system.
  - Procedures for control (including distribution) and maintenance of all QM procedures, corporate recordkeeping, and records retention policy.
  - Job descriptions of key staff and reference to the job descriptions of other staff.
  - Identification of company's approved signatories (when relevant).
  - Company procedure to achieve traceability of measurements against industry standards and manufacturer's recommendations.
  - Company's general scope of QM duties and tests (the precise scope of QM duties shall be tailored by the specific contract or work order).
  - Clear reference to the QS duties (inspections), verification, and test procedures to be used.
  - Procedures for performing QS inspections and tests.
  - Reference to any QS duties, equipment, and reference measurement standards used.
  - Reference to procedures for QS duties, calibration, and equipment maintenance (as required).
  - Procedures for handling non-conforming work and rework.

### **B. Quality Plans**

#### **1. Documentation**

You need to define and document requirements for quality to meet job specifications. These Quality plans are consistent with the company quality system and will be documented in a format as required per company procedures or job specification required format. You will include at a minimum, the following activities as appropriate in meeting the specified requirements for products, projects or contracts:

- Preparation of quality plans.

- Identification and acquisition of any controls, processes, or equipment needed to achieve the required quality.
- Ensuring compatibility of the production process and the applicable documentation.
- Issuing of revisions as needed to continue improvement and meet requirements.

## 2. Work Plans

You have a separate written work plan, including an inspection plan for each job phase. An approved plan is prepared for each task that requires performance of productive work prior to the start of work on that specific project. The plan is revised and updated to stay current with all contract requirements. The plan is a compilation of all processes that make up the required work. Each process will include at a minimum:

- A written description of the process.
- Qualification requirement for personnel performing the work.
- Methods used to ensure personnel accomplishing the procedure have direct knowledge of the requirements prior to beginning work.
- Methods used to control procedure.
- Acceptance and rejection criteria.

## 3. Procedures for Project Document Review

You need to establish and maintain documented procedures for project documentation review. Before submission of a bid, tender, proposal or acceptance of a contract the project documents are reviewed to ensure that:

- Requirements are adequately defined and documented.
- Documentation that all ambiguities and differences are resolved and approved.
- You have the capability to meet all contract and specification requirements.

You have procedures showing how amendments and revision to project contracts and specifications are documented and issued to project personnel. You will maintain records of contract and job specifications.

## 4. Document and Data Control

Your company has implemented and maintains documented procedures to control all documents and data that relate to the requirements of QS1. Individual documents are clearly legible and have a unique numbering system for identification where applicable.

## 5. Document and Data Approval and Issuance

You need to have procedures in place for reviewing documents and approval of adequacy by authorized personnel that will be verified. A master list or equivalent document control procedure will be in place to identify the current revision status of documents. The document control procedures will ensure that:

- Pertinent issues of appropriate documents are available at all locations where operations essential to the effectiveness of the quality system are performed.
- Procedures for removing invalid and/or obsolete documents.
- Retained obsolete documents are clearly marked as such.

## 6. Document & Data Revisions

Changes to documents and data are reviewed and approved by personnel that performed original review and approval or by other authorized personnel.

## 7. Internal Review

**A. Spot Checks:** There is documentation that inspection results and tests are independently reviewed in the field on a spot basis by a competent supervisor to ensure conformance with specifications and other contract requirements. There is also a company policy for spot checks, and documentation of specific project changes.

**B. Internal Audits:** Your company has a program that outlines the particulars of internal audits (who, when, where, etc.). At a minimum, the plan meets SSPC Guidelines for internal auditing listed below. The audits are conducted by qualified personnel.

## **C. Organization and Management**

### **1. Demonstrate a Distinct and Independent QM System**

The QM System function must be identifiable as a separate unit in your organization and operate as such. The organization chart, company practices, procedure manuals, and job duties performed should confirm the separate identity of the QS Function.

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**2. Note: The QS Manager must be present during the entire QS1 Audit.**  
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### **3. \* Submittal Item: Resumes and QM Training Certificates for QS Manager and All Back-Ups**

Your company must employ a technical or QS Manager who has the responsibility and authority to implement and monitor compliance with all QM System Procedures, as they apply to all industrial/marine coating application operations where a QS1 or equivalent QMS system is required. The QM System Manager needs to report directly to Executive Management. The QSM must be an SSPC Certified PCS, or SSPC PCI Certified Coatings Inspector, or NACE Level III Certified Coatings Inspector; or hold a BS in Corrosion Science, Corrosion Engineering, or Materials Science/Engineering, and have a minimum of 10 years of relevant corrosion control or protective coatings-related experience.

### **4. QM System Manager Back-Up Plan**

There needs to be a written plan appointing a designated back up having the required QM System Manager qualifications. This back-up plan must be approved by Executive Management and requires the designated replacements to report directly to Executive Management when functioning as assistant or back up Technical/Quality Managers.

#### **A. TQM Function**

The appropriate processes, procedures, and controls should be established and distributed by the QM System Manager to all persons involved in QS programs. Your company has to demonstrate that the QS Manager is actively involved in QS activities on an ongoing basis. **Note:** One or more individuals may handle the TQM function. In a small company, the QM function might be assigned to 1 person. In a large company, there should be a senior person in the position of overall responsibility, even though other qualified persons may perform some of the program duties as assistant QS Managers. The QS Manager is expected to be the program manager and exert significant oversight responsibilities through routine management and continuous improvement of the QS process.

#### **B. QS Manager Review of All QS Personnel**

You need to show that the QS Manager periodically monitors QS personnel work (e.g., daily upon project "start up," then weekly until QS Manager is satisfied with QS personnel abilities).

**Note:** "Work" is defined, in this instance, as project documentation but could also include on-site observation of QS personnel. The QS Manager or an Assistant QS Manager, depending on company structure, might perform this function. Inspection results are verified and signed by a competent supervisor not directly performing the inspections.

#### **C. QS Review by a Responsible Executive (RE)**

The QC Manual and effectiveness of its implementation is to be reviewed by the RE and that review documented annually.

## **D. Personnel**

### **QS Qualification and Training Program**

#### **\*Submittal Item-Summary of Company QS Personnel Qualification Program**

You need to have a written program in place to qualify and train QS employees, in particular field or shop inspectors. Records of relevant qualification, training, skills, and experience must be accurate and current.

### **1. Physical Assessments**

**Near Distance Visual Acuity:** QS employees must be examined annually to ensure natural or corrected near-distance visual acuity. The test should be conducted using the J-1 letters of a standard Jaeger Test Chart or equivalent, at a distance of not less than 12 inches with one or both eyes corrected or uncorrected. **Note:** For all of the medical qualification testing, there should be documentation between you and your doctors concerning the specific tests and evaluations required for each QS employee. Each doctor's examination should reference the specific requirements and provide pass/fail evaluations.

**Color Perception:** Each QS employee must be examined annually for color perception using the Ishihara Test or the Farnsworth D-15 Test. Exams must be administered by a licensed medical practitioner or someone certified by a licensed medical practitioner to administer the tests.

QS Personnel who do not pass the Farnsworth D-15 Test may be evaluated by a licensed medical professional to provide the necessary data to determine color perception. Such employees may only be certified to perform QS work within their color perception capability.

**Other Physical Qualifications:**

Other physical qualifications required to perform QS duties (e.g., climbing, working at heights, confined spaces) must be identified. These QS personnel must be examined by a licensed medical practitioner, or equivalent, at intervals not to exceed one (1) year to confirm continued qualification to perform assigned duties.

### **2. Review of Personnel Records During the Audits**

It is important that you make available to the SSPC Auditor any personnel information that is needed to confirm compliance with applicable QS1 Requirements. Such information includes but may not be limited to:

- Medical surveillance records (e.g., blood lead test results; zpp test results) for QS personnel and others who work on your job sites and who may be exposed to hazardous metals or materials.
- Clearances to wear respirators.
- Respirator Fit Tests.
- Hearing Test Results.
- Training records, including exam results and course curriculums.
- Hazard communication (right to know) training records.

Many companies maintain spreadsheets of such information. It is important on an audit to have the back-up information (e.g. certification cards; course exams; medical exam summaries) available so the Auditor can verify the information recorded on spreadsheets or other types of summaries. Due to increased privacy concerns under HIPAA (Health Insurance Portability and Accountability Act of 1996), it may be necessary to obtain release forms from those persons who have QMS duties for your company just to make sure you're covered. HIPAA provides federal protection against the misuse of individually identifiable health care information.

However, HIPAA should not be used as a shield when the SSPC Auditor requests data. This interpretation is based on a letter issued by OSHA (Standard Interpretation Letter dated August 18, 2004) that explains to contractors that they do not have to remove names from their OSHA 300 Injury and Illnesses Log in order to comply with HIPAA. SSPC assures each contractor who is audited by SSPC that the SSPC Auditor or Certification Manager will only ask to review personnel information that is required to confirm compliance with the QS1 audit requirements. The SSPC Auditor will not ask to see any personal medical exam results. The SSPC Auditor will treat any personnel information reviewed as confidential and will ask to see it only for the purpose of confirming compliance with the QS1 program. Failure to make available personnel information to SSPC so SSPC can determine compliance with QS1 will result in issuance of findings, which could lead to suspension or loss of certification status.

### **3. Personnel Qualifications**

The requirements for personnel qualifications (e.g., Assistant TQMs, QS Inspectors, and Supervisors/Competent Persons) are intended to be strictly followed, with the understanding that occasional exceptions may be acceptable and prudent. Exceptions should be accepted where the occasional individual does not meet every specific qualification. However, an analysis of other qualifications by the TQM and the Responsible Executive should indicate that the individual is fully capable, or capable with specific restrictions. In any event, exceptions are to be documented as to the analysis, the name and title of the person, and date of decision. For instance, a basic QS Inspector requirement is to have a high school diploma. SSPC is aware that there are QS Inspectors in the work force who do not have H.S. diplomas, and yet some are excellent at their work. SSPC does not want to lower the standard, since the intent is to raise the over-all level of the QS Inspectors. We take the approach that the primary reason for requiring the high-school diploma or equivalent is to provide individuals who are:

- Functionally literate.
- Able to express thoughts and ideas both verbally and in writing.
- Show ability to analyze problems and exercise good judgment.

This criterion provides a good basis for evaluating individuals who do not possess the diploma. Any such analysis, however, must be documented and appropriately executed through the management system.

#### **4. General Guidelines For Documenting**

- Only the documented portions of the program will be reviewed and audited. **If not documented, it is not considered to exist.**
- Any QS performance evaluation that was not documented, signed, and dated, has not been accomplished.
- A review that was not initialed and dated was not accomplished.
- An internal audit not signed, dated, and forwarded to the appropriate authority was not completed.

#### **5. Floor audit Of QS Inspectors To Verify Company Support.**

- The SSPC auditor or Certification Manager may (as part of the QS1 audit process), request to interview QS personnel in the field or elsewhere.

### ***E. Equipment and Equipment Reference Materials***

QS personnel must be furnished all items of equipment, including references, to perform required QS inspections and tests.

**Note:** Project records should document all equipment issued to each project or each QS Inspector.

#### **1. Maintenance of QS Equipment**

Procedures and manufacturer's instructions for maintenance and calibration requirements for each piece of equipment used must be provided to each QS Inspector. All equipment must be maintained in accordance with manufacturer's recommendations and records should show that defective equipment has been clearly identified and removed from service.

### ***F. Measurement Traceability and Calibration***

- Procedures for measuring and testing equipment calibration must be issued to each QS Inspector.
- Measurements, where applicable, must be traceable to nationally recognized standards.
- When traceability to national standards is not applicable, your company should have procedures or manufacturer's instructions to confirm correlation of results.
- Calibration records, when required by the project specification, are maintained for each instrument that requires laboratory calibration. Records include:
  - The name of the instrument.
  - The manufacturer's name, type identification, and serial number or unique ID.
  - Date the instrument was received and date it was placed in service.
  - Condition of the instrument when received (e.g., new, used, or reconditioned).
  - Manufacturer's operating and calibrating instructions for the instrument.
  - Dates and results of the instrument's calibration and date that the next calibration should be performed.

- Equipment used to perform the calibration.

### **1. Measurement Traceability (In Service)**

- Where relevant, the reference standards and measuring/testing equipment (e.g., dry film thickness gauges) are to be subjected to in-service checks between laboratory and/or factory calibrations.
- QS Inspectors must note field calibration verification checks on QS inspection reports. QS Inspectors are to note equipment model and serial number for measurements taken with each instrument.

## **G. Inspection Methods and Practices**

### **1. QS Duties-Methods/Practices (General):**

QS Inspectors must be furnished up-to-date instruction manuals that include current standards and instructions on calibration and use of equipment, at least annually. QS Inspectors must be brought up-to-date, at least annually, on new standards, new tests, new instruments, and new practices relevant to coatings/linings QS duties. **Note:** This may be accomplished through an annual (or routine) meeting or class to discuss QS changes. Other acceptable methods include disseminating changes through traceable documents and self-study materials.

### **2. QS Duties-Methods/Practices (Job Specific):**

QS Inspectors must be furnished with job specifications, product data sheets, MSDS's, appropriate standards, and other applicable job-specific documents and equipment. Appropriate methods and procedures that comply with contract requirements must be used for QS tests and related activities. Where methods are not specified, methods must be selected that have been published by technical organizations such as SSPC, NACE or ASTM, or other relevant scientific organizations and journals. Where it is necessary to employ methods not specified or not spelled out as a standard, agreement must be reached among the contractor, client, and coating or material or equipment manufacturer on acceptable methods and the agreement documented.

### **3. Sampling:**

Where sampling is carried out as part of the test method, use documented procedures and appropriate statistical techniques to select samples.

### **4. Calculations and Data Transfer:**

Calculations and data transfers must be subject to appropriate checks.

## **H. Traceability of Records and Reports**

### **1. Use of Computers**

Where computers or automated equipment are used for recording, processing, manipulation, reporting, storage or retrieval of calibration or other QS data, you must ensure that:

- Procedures are established and implemented for protecting the integrity of data. Such procedures shall include, but not be limited to, integrity of data entry or capture, data storage, data back up and replication, data transmission and data processing, and controlled access to computer files.
- Computer and automated equipment must be maintained to ensure proper functioning, with environment and operating conditions necessary to maintain the integrity of calibration and test data.

### **2. Record System**

Demonstrate that:

- You maintain a record system to suit particular circumstance and comply with any applicable regulations.
- You retain records of all original observations, calculations, derived data, calibration records and a copy of the calibration certificate, or QS report for an appropriate period of time.
- The records for each QS test contain sufficient information to permit their repetition.

### **3. The procedures listed below for ensuring quality of QS duties and support activities should be in place:**

- QS procedures and recording systems.
- Procedures for receipt of specifications and revisions.
- Procedures for identifying the structure or equipment to be inspected.
- Records of standards and specifications or coatings QS work records and their utilization.

- System for filing, distributing, storing, and retrieving QS reports.
- Determination of required QS equipment, calibration standards, and procedures.
- Procedures to ensure that each major significant activity (e.g., surface preparation, coating application, curing of primer, intermediate, and topcoat application) is inspected and documented.
- Procedures to verify that specified steps are taken in storing, handling, and applying coatings in compliance with OSHA, EPA, state and local regulations, and applicable NFPA standards.

#### **4. Storage of Records**

All records (including those pertaining to calibration and test equipment), certificates, and reports must be safely stored and held secure and in confidence to the client. Reasonable efforts (e.g., locked room, vault or file cabinets with controlled access) should be made to keep records safe and secure.

### ***I. Certificates and Reports***

The results of each QS test, or series of QS tests, carried out by your company to be recorded in a written report accurately and objectively, in accordance with any instructions in the test method. The results should include all the information necessary for the interpretation of the test results and all information required by the method used as follows:

- A descriptive title.
- Name and address of company and location where the tests were carried out.
- ID of the instrumentation (such as serial number).
- Name and address of client.
- Description and clear ID of the structure section or equipment inspected.
- Description of the test area and results of the test.
- Date of tests.
- ID of QS test method used, or clear description of any non-standard method used.
- Reference to sampling procedure, where relevant.
- Any deviations from, additions to, or exclusions from the test method, or any other information relevant to a specific test, such as environmental conditions.
- Measurements, examinations, and derived results, supported by tables, graphs, sketches, and photographs, identifying any and all failures.
- A signature and title, or equivalent identification of the QS Inspector.
- Where relevant, a statement to the effect that the results relate only to the items inspected or tested. A statement that the report shall not be reproduced, except in full, without written approval of the company is also necessary.
- Results of QS tests performed by subcontractors must be clearly identified.

### ***J. Subcontracting of Inspection or Testing***

Subcontracted coatings and linings QSM work is performed, without exception, by companies qualified to QS1 or equivalent. There must be a definitive agreement among all parties in subcontracting arrangements as to the responsibilities of each. **Note:** Where a QS1 contractor retains all management responsibility, this is not considered subcontracting, regardless of how the QS1 Inspectors are hired.

### ***K. Outside Support and Supplies***

You must show evidence of using outside services and supplies that are of adequate quality to sustain the client's confidence in work that is performed. You must maintain records of all suppliers of products and services that you use to perform contract work adequately.

### ***L. Complaints***

You must have a documented policy and specific procedures for the resolution of client or third-party complaints about work and these must have been implemented. Complaints must be readily available, tracked until resolved, and the resolution documented, along with the complainant's response(s). **Note:** A definitive policy is required as well as evidence that the policy is followed. It must outline for all employees the process that is to be followed upon receipt of a complaint. A policy that refers the complaint to the "Responsible Executive" for investigation and resolution is satisfactory.

#### ***1. Audits Triggered by Significant Complaints:***

Complaints that raise concerns about the company's compliance with policies and procedures, conformance to this standard, or the quality of work trigger an Audit.

## **VI. Guidance on Meeting QS1 Internal Audit Requirement & SSPC Position Statement on Internal Auditing Requirements for QS1 Certified Coating and Lining Firms:**

This position statement applies to the your internal auditing of coating and lining work. The internal audit program consists of all internal audits, annual management evaluations, corrective actions, and follow-up.

### **A. Introduction: Why Implement an Internal Auditing Program?**

Unlike the audit of a company's financial statements, internal quality auditing is used as a tool for monitoring the state of your company's quality management system (QMS). An effective internal audit process can benefit your company by improving operating efficiency (e.g., reducing waste and rework) and reducing business risks (e.g. warranty service demands, latent defects, and litigation problems). When you take the time to identify areas of inefficiency, you are always looking at your coating QS services with an eye toward improving your performance (i.e., reducing rework by getting it right the first time, every time).

The use of internal audits in conjunction with a QMS provides a framework for evaluating compliance. Internal audits also create an environment where continual improvement is both expected and desired.

If your firm implements a QMS merely to comply with QS1, your company is missing the point of the QMS. Likewise, if you implement an internal auditing program just to meet a QS1 audit item, you are again overlooking the benefits of continuous improvement.

The QMS provides the structure from which you can develop a baseline for management and operations / production personnel to improve processes in a controlled fashion. The internal audit process plays an important role in:

- Continually assessing your company's compliance with its QMS
- Helping you evaluate the effectiveness of previous improvement efforts
- Identifying future opportunities for improvement

Top management must be the first to recognize the value of the QMS and the internal audit program. There must be a total commitment from top management to implement the QMS and to continually improve your company's operations. An effective internal audit program is critical for monitoring your company's QMS and identifying where further efficiencies can be applied.

### **B. Who Makes a Good Internal Auditor?**

**ISO/ASQ QE19011-2002 Auditing** identifies the following personal attributes for an auditor:

- Ethical (fair, truthful, sincere, honest, and discreet)
- Open-minded (willing to consider alternative ideas or points-of-view)
- Diplomatic (tactful in dealing with people)
- Observant (actively aware of physical surroundings and activities)
- Perceptive (instinctively aware of and able to understand situations)
- Versatile (adjusts readily to different situations)
- Tenacious (persistent, focused on achieving objectives)
- Decisive (reaches timely conclusions based on logical reasoning and analysis)
- Self-reliant (acts and functions independently while interacting effectively with others)

Your internal auditors should have all these characteristics, plus a keen eye for problems associated with operating the business and the ability to synthesize knowledge and observations into meaningful recommendations for improvement. Successful internal auditing also requires using certain techniques that are not necessarily complicated, but not always self-explanatory. Like all areas of business and management, once you've identified an individual with the desired personal characteristics, some training and experience will be required for the individual to perform satisfactorily.

### **C. Auditor Training and Qualifications**

ISO/ASQ QE19011-2002 also provides numerous recommendations for auditor qualifications and experience. Additionally, the effective internal auditor must have general knowledge of coating and linings and company operations, as well as technical knowledge of the protective coatings industry.

The American Society for Quality (ASQ) has an Auditor Certification Program that is appropriate for internal auditors. While ASQ certification is not required for QS1 internal auditors, it may be worth considering for the individual(s) in your company heavily involved in internal auditing. The Body of Knowledge for the Certified Quality Auditor Program can be found at <http://asq.org/certification/index.html>, or specifically at <http://asq.org/certification/quality-auditor/index.html>. ASQ also offers a self-study-auditing course in both “at home” and “online” versions. At a minimum, any individual assigned auditing functions should have completed ASQ e-Learning Courses – Auditing (CQA) Fundamentals I and Auditing (CQA) Fundamentals II, or ASQ’s Foundations in Quality Learning Series – Certified Quality Auditor (self-study), or an equivalent. ASQ e-Learning Course – Quality 101 (web-based training) will provide a good foundation for anyone involved in developing, managing, auditing, or otherwise maintaining a QMS.

### **D. Compliance with QS1**

SSPC expects QS1 firms to perform internal audits on a minimum of 50% of their coatings and linings projects. One way to demonstrate compliance with this quantitative requirement is to keep a log of annual (FY calendar) projects with notations on the log showing which jobs were internally audited, the name of the internal auditor, and the date(s) of the internal audit. The log should link specific project records to the appropriate internal audit records.

If you already have such a log or list and use it for other purposes, this is acceptable. To assist you in identifying projects for auditing, here is a list of situations that might pose unusual risks and must be considered high-priority projects for internal auditing:

- Using or having used an QS Inspector “new” to your company.
- Using or having used a newly trained, inexperienced QS Inspector.
- Doing work for a new client.
- Doing a new category of work, regardless of whether you have an experienced QS Inspector on the project.
- Receiving a complaint about quality from a client or the prime contractor, or the material or equipment supplier.
- Receiving a formal request from a client to audit project documents and test procedures/results.
- Executing a contract that requires internal auditing.

You should allow for internal audits to be both announced and unannounced at the discretion of your Technical Quality Manager (TQM) or Quality Control/Assurance Manager (QCM) or the Responsible Executive (RE).

### **E. Audit Sample Size**

Much value can be derived from internal audits when appropriate sampling techniques are used. You should have procedures in place to implement the internal audit policy, including selecting projects, sampling, evaluating, and reporting. Internal audits should be fair and objective. Before beginning any audit, the internal auditor must become familiar with the details of the coating specification, especially acceptance criteria, as well as details of the QS1 records, test procedures, and results. Results must be reviewed for completeness, accuracy, and relevance.

When the audit is complete, the internal auditor must sign the report and distribute copies to the TQM and the RE. All audit reports (internal and external), management reviews, corrective actions, and resolutions (internal and external) must be part of the controlled records.

## VII. QS1 Submittal Procedure

- A.** To avoid delay in application processing, gather and submit application package materials as follows:
- Type or legibly print all entries on the application form.
  - Be certain all items on the form are answered completely and accurately and that the form is signed by executive management.
  - Send original and one copy of the application package to SSPC. We suggest you keep a copy on hand for use during the audit.
  - Clearly identify items of information that are noted on the evaluation checklist as being required submittals to accompany the application.
- B.** Submittal items include:
- Approved QC Manual\*
  - Name of QC or Technical Quality Manager\*
  - QC or TQM designated backups or assistants\*
  - Summary of QS Inspector Qualification Program\*

Secure all pages to minimize chance of loss or separation.

Determine non-refundable certification fee/audit deposit using the Fee Schedule on the next page.

Make check payable to: **SSPC: The Society for Protective Coatings**

Send the application package and fees to:

**SSPC (Society for Protective Coatings)**  
**Attn: Certification Manager**  
**40 24<sup>th</sup> Street**  
**6<sup>th</sup> Floor**  
**Pittsburgh, PA 15222-4656**

Alternatively, application and submittals may be submitted electronically on CD-ROM, or by email with electronic signatures required on the application form. SSPC must be able to open, read, and print the document. Email documents to: [suzich@sspc.org](mailto:suzich@sspc.org) or [dawson@sspc.org](mailto:dawson@sspc.org).

## VIII. QS1 Fee Schedule

Submit in advance your non-refundable fees (the annual administrative fee plus a deposit for audit expenses) with your QS1 Initial Application. SSPC will withhold your QS1 Certification until receiving total payment. The fees cover the cost of staff time to review and process your application package, the cost of the on-site audit, and the overhead expenses required to operate the program.

Note: Annual administrative fees are not refundable if a contractor's certification(s) are suspended or revoked.

Use the following table to determine your fee:

<b>Administrative Fee</b>	<b>Sustaining Member</b>	<b>Patron Member</b>	<b>Non Member</b>
Initial and Maintenance	\$ 1,350	\$ 1,600	\$ 2,150
QS1 Corrective Action	\$ 300	\$ 500	\$ 800
<b>Audit Deposits (Fees regardless of membership level)</b>			
Initial and Maintenance			
QS1	\$2,200	\$2,200	\$2,200
QS1 Corrective Action Verification	\$300	\$ 500	\$ 800
*Outside U.S./Canada/Mexico Add	\$1,000		

## IX. SSPC Policy

### A. SSPC Audit Fee Policy

Audits are performed at cost. If the audit cost is less than the submitted audit deposit, SSPC will refund the difference. If the audit cost is more than the audit deposit, SSPC will bill your company for the additional expenses. Program fees are non-refundable, regardless of the results of the evaluation and audit. Fees have to

be paid in advance in order to cover the cost of performing the audit. After six (6) months SSPC will return “non-responsive” and “inactive” applications to you. QS applicants must pay all applicable fees for QS1 corrective action verification audits for additional audit expenses when they are due. Failure to pay in a timely manner will result in a six-month suspension from the program and public notification of the suspension. If fees are not paid after the suspension period, your company will be will be decertified. To regain QS1 Certification, you will need to reapply as an initial applicant, pay all applicable fees, and fees owed from the past. If you withdraw an application prior to scheduling the field evaluation, SSPC will withhold \$500 for application processing expenses.

## **B. SSPC Audit Cancellation Policy**

If you cancel an audit or request a change of date after you and SSPC select, agree to, and confirm this date either verbally or in writing, you will be responsible for any unrecoverable expenses incurred by SSPC as a result of the cancellation or re-scheduling.

## **X. Evaluation Process**

Your evaluation will be performed in conformity with the current version of SSPC - QS1: Standard Procedure for Evaluating the Contractor’s Advanced Quality Management System. After the application package (i.e. application form, written submittal, and certification fee/audit deposit) is received, reviewed, and “accepted” by SSPC, the application form and submittals are assigned to an Auditor. When a mutually agreed upon date or time-frame has been selected for the Initial Audit and confirmed in writing, or verbally, by you and the SSPC Certification Manager or Auditor, SSPC will dispatch an Auditor to visit your headquarters business office (and job site, if appropriate) to accomplish the following:

- Confirm data submitted in the application package.
- Interview key personnel and selected QS personnel.
- Observe and rate company organization and operation, utilizing standard QS1 program guidelines and rating procedures.
- Conduct the Exit Interview.

At the conclusion of the audit, the Auditor will schedule an Exit Interview with appropriate management, including the QC Manager or Technical Quality Manager and other QS personnel to point out any major corrective actions (CAs) that were rated less than a “2” and items rated “2” that require a minor corrective action report (minor CARs).

**Note:** Your QS Manager must be present during the entire audit. If corrective actions are required, the Auditor will complete a deficiency/corrective action schedule, which must be signed by the company representative at the conclusion of the audit. A company representative’s signature does not connote agreement with audit results but only acknowledges receipt of audit findings. Refusal to sign the deficiency schedule will result in denial of certification.

## **XI. Determination of Status**

At the conclusion of the evaluation process, the Auditor will forward a report to the SSPC Certification Manager who will make the final decision regarding audit findings. The Certification Manager will, in turn, give recommendations to the Program Administrator regarding certification. The recommendations are defined as:

### **A. Confer Interim or Full Certification:**

You have achieved scores of “3” on all evaluation items.

### **B. Deny Qualification:**

You have achieved scores of “2” or less on items that require written corrective actions within 90 days of notification of audit results. Certification can be issued once a corrective action plan is submitted and accepted for each item rated “2” or less. If you achieved 4 or more ratings of “2” or less, a follow-up audit may be required. When you achieve scores of “1” on one or more items, you must submit a written corrective action plans and request a follow-up audit at your expense. The follow-up audit will confirm that acceptable corrective actions have been implemented and root causes investigated.

## **XII. Appeals Procedures**

During the Exit Interview, the Auditor will explain the findings cited during the evaluation. If you dispute audit findings, you can file an appeal upon being notified of the audit results. Steps for filing an appeal are:

- You must notify SSPC in writing within 10 working days after notification of audit findings at the Exit Interview, specifically identifying those items in contention and why you are contesting audit findings.

- Arrange with SSPC to have a second audit **at your expense** to evaluate items in contention. In the event the foregoing step fails to resolve the dispute, a mutually agreed-upon arbitration panel consisting of 3 persons, one chosen by you; one chosen by SSPC; and one agreed upon by both parties. (i.e., a person or persons familiar with QS1 operations in the coating industry or [Quality Management Systems]) will hear evidence and make a final decision. If the arbitration panel finds in your favor, all fees and expenses to convene the panel will be shared equally by the appellant and SSPC. If the arbitration panel supports the findings of the SSPC Audit, the appellant will be responsible for payment of all fees and expenses associated with the appeal.

**Note:** Contractors who do not appeal audit findings can still appeal disciplinary action taken by SSPC as a result of failing an audit. Use the above procedures to appeal a suspension resulting from a failed audit.

**IMPORTANT:** Failure to cooperate with the Program Auditor, or failure to provide access to data, personnel, or on-site premises shall be sufficient cause for denial, suspension, or revocation of QS1 certification.

### ***XIII. Renewal Application***

SSPC-QS1 Certification is for one year from January 1 to December 31. To renew certification, you must re-apply annually by January 15 of the requested certification year.

You will be required to submit an annual application form, a list of QS1 projects in progress and completed since the last evaluation, changes in key personnel, changes in company organization, and the appropriate maintenance fee. **All must be submitted by January 15.**

SSPC will send a renewal notice to you approximately 60 days before the January 15 anniversary date as a reminder to reapply. You are responsible for ensuring that SSPC has your current business address and other contact information so that you receive your notification in a timely manner.

**If you fail to reapply by the January 15 deadline, certification will expire.**

SSPC will send a letter to any company that has failed to reapply when due as a reminder that certification has expired.

### ***XIV. Definitions***

#### ***A. Auditor***

A person employed by SSPC or an independent auditing agency who meets SSPC-QS1 Auditor Training requirements and is responsible for reviewing applicant submittals, conducting on-site evaluations, and reporting findings to SSPC.

#### ***B. CAR***

Corrective Action Report- Required for each major or minor deficiency found by the Auditor.

#### ***C. Certification***

The procedure by which written assurance is given that a product or service conforms to a standard or specification. In this program, certification is for a maximum of one year.

#### ***D. Evaluation Items***

Specific facts / evidence an auditor uses when assessing an applicant's required information.

#### ***E. Function Areas***

Specific areas of a QS1 company's business operation that are evaluated because they directly or indirectly affect the quality of work provided. These include management and organization; quality system and internal audit program; qualification of QS personnel; QS practices, records, recordkeeping, etc.

#### ***F. Rating***

The method of measuring a contractor's performance during the certification process. Each evaluation item used to assess information submitted or provided by the contractor is rated on a scale of "1" to "3". Minor and major deficiency corrective actions are required for "1" and "2" ratings.

#### ***G. Remedial action for a MAJOR CAR***

Requires submission of an SSPC-approved corrective action plan within 90 days of notification of audit results, followed by an on-site follow-up audit to confirm that the deficiency(s) have been corrected.

#### **H. Remedial action for a MINOR CAR**

Requires submission of an SSPC approved corrective action plan within 90 days of notification of audit results. Four (4) or more minor CARs may also require a follow-up on-site evaluation.

#### **I. Required Information**

Specific items of information that an applicant must provide prior to and during the on-site audit.

### ***XV. QS1 Scoring Criteria***

#### **A. Rating Definitions and Scoring Terms**

##### **1. Rating "1"**

(Major CAR) The required training, written program, practice or procedure is non-existent or required training or written program is inadequate (i.e., required practice and procedure in place sporadically - less than 2/3 implemented).

##### **2. Rating "2"**

(Minor CAR) The training or written program is adequate or requiring minor revisions (i.e., practice or procedure is in place with isolated instances of non-conformance, no more than 1/3 of the time - e.g., lack of practice or documentation due to personnel turnover, non-performance by QS personnel, or extenuating circumstances).

##### **3. Rating "3"**

(No CAR required) Company consistently adheres to specific training and written program requirements. Required practice and procedures consistently meet the letter of the standard.

#### **B. Required Scores to Achieve QS1 Certification**

Rating of "3" on all evaluation items or appropriate written response to less than four (4) MINOR CARs (items with a rating of "2") within 90 days of notification of audit results. All items with a minimal rating of "2" must be addressed in written corrective action plan submitted within 90 days of the audit. **Note:** Your scores are compiled on the evaluation report form and tally sheet used by the Auditor. Copies of the audit reports are sent to you 30 to 40 days after the audit is completed.

#### **C. Periodic Spot Checks**

In addition to the annual SSPC QS1 external audit conducted at your headquarters or at a division office, SSPC may, at its discretion, do a periodic spot check of your QS procedures as they apply to a particular job. Please notify your QS Inspectors and project managers so they are prepared to respond to an SSPC Auditor's questions about QS1-related procedures. If the SSPC Auditor cites your company for a deficiency or a corrective action as a result of a shop or field spot check, the auditor will inform your QS1 representative on-site of the deficiency or corrective action.