



# Facilities Maintenance Contractor QA/QC Plan Sample

Selected pages (not a complete plan)

**Part 1: Project-Specific Quality Plan**

**Part 2: Quality Manual**

**Part 3: Submittal Forms**

**Contact:**

**FirstTimeQuality**

**410-451-8006**

# CONTRACT-SPECIFIC MAINTENANCE QUALITY PLAN

## TABLE OF CONTENTS

<b>Background Information</b> .....	<b>7</b>
Customer .....	7
Contract Name .....	7
Contract Number.....	7
Contract Location .....	7
Overall Contract Description .....	7
[CompanyName] Scope of Work .....	7
<b>A. [CompanyName] Quality Policy</b> .....	<b>8</b>
<b>B. Key Elements of the Maintenance Quality Plan</b> .....	<b>9</b>
Contract Quality Assurance/Quality Control Plan Overview .....	12
<b>C. Contract Quality Coordination and Communication</b> .....	<b>13</b>
<b>D. Contract QC Personnel</b> .....	<b>17</b>
Contract QC Job Position Assignments.....	17
Contract QC Organization Chart.....	18
<b>E. Duties, Responsibilities, and Authority of QC Personnel</b> .....	<b>19</b>
<b>F. Personnel Qualifications and Technical Certifications</b> .....	<b>25</b>
<b>G. Qualification of Third Party Inspection/Testing Companies and Subcontractors and Suppliers</b> .....	<b>27</b>
Maintenance Inspection/Testing Laboratory Qualification Requirements .....	27
Qualification .....	27
Purchase Order Approval .....	28
<b>H. Quality Training</b> .....	<b>30</b>
<b>I. Maintenance Contract Quality Specifications</b> .....	<b>33</b>
Local maintenance Codes.....	33
<b>J. Material Inspection Traceability and Quality Controls</b> .....	<b>35</b>
Identification of Lot Controlled Materials .....	35
Material Receiving and Inspection .....	35
<b>K. Maintenance Inspection and Test Plan</b> .....	<b>39</b>
Calibration of Inspection, Measuring, and Test Equipment .....	39
<b>L. Work Task Quality Inspections</b> .....	<b>42</b>
Identification of Quality Inspected Work Tasks.....	42
Required Inspections For Each Work Task .....	42
Daily Quality Control Report.....	43
<b>M. Control of Corrections and Nonconformances</b> .....	<b>52</b>
Marking of Nonconformances and Observations.....	52

## Questions? Call First Time Quality 410-451-8006

Control the Continuation of Work.....	52
Recording of Nonconformances.....	52
Quality Manager Disposition of Nonconformance Reports .....	53
Corrective Actions .....	53
Nonconformance Preventive Actions.....	54
<b>N. Contract Completion Inspections.....</b>	<b>56</b>
Punch-Out QC Inspection .....	56
Pre-Final Customer Inspection .....	56
Final Acceptance Customer Inspection .....	57
<b>O. Contract Quality Records and Documents.....</b>	<b>60</b>
<b>P. Quality Assurance Surveillance .....</b>	<b>63</b>
Project Quality Performance Surveillance.....	63
Project Quality Audits.....	63
Contract Audit Plan .....	64
Contract Audit Requirements.....	64
<b>Q. Additional Quality Control Requirements .....</b>	<b>66</b>

Selected Pages

# I. MAINTENANCE CONTRACT QUALITY SPECIFICATIONS

Fulfilling customer contract expectations is a primary objective of the [CompanyName] Quality System. To ensure that customer expectations will be fulfilled, [CompanyName] clearly defines the requirements for each contract before it is approved.

The Contract Manager ensures that the information in customer contracts clearly defines customer expectations and that the necessary details are provided to set requirements for maintenance.

[CompanyName] personnel and subcontractors and suppliers are accountable for compliance to standards-based written specifications.

To achieve expectations reliably and consistently, specifications are clearly spelled out, not only for results but also for processes. Specifications apply to materials, work steps, qualified personnel and subcontractors and suppliers, safe work rules, and environmental work conditions.

Standards ensure that results are specified rather than left to discretionary practices.

Selected Pages

**Questions? Call First Time Quality 410-451-8006**

<b>[CompanyName][CompanySuffix] Quality Inspection and Test Plan</b>											
Project ID			Project Name						CONTRACTOR		
[ProjectNumber]			[ProjectName]						[CompanyName]		
SPECIFICATION SECTION AND PARAGRAPH NUMBER	SCHEDULE ACTIVITY ID	TEST REQUIRED	ACCREDITED/ APPROVED LAB YES /NO	SAMPLED BY	TESTED BY	LOCATION OF TEST ON/OFF SITE/SITE	DATE COMPLETED	DATE FORWARDED TO CUSTOMER	REMARKS		

Selected Pages

## **L. WORK TASK QUALITY INSPECTIONS**

[CompanyName] identifies a list of work tasks which will be quality controlled. Each work task is subject to a series of inspections; before, during, and after completion.

Each inspection verifies compliance with full scope of the relevant specifications; not limited to inspection form checkpoints.

The initial work task-ready inspection occurs when work is ready to start and ensures that work begins only when it does not adversely impact quality results.

Incoming material inspections verify that materials are as specified and meet all requirements necessary to assure quality results.

Work-in-process inspections continuously verify that work conforms to project specifications and quality expectations. Work continues only when it does not adversely impact quality results.

At completion of the work task an inspection verifies that work has been completed in accordance with project quality requirements.

Inspection results are recorded and maintained as part of the project files.

The Quality Manager identifies each Task that is a phase of construction that requires separate quality controls to assure and control quality results. Each Task triggers a set of requirements for quality control inspections before, during and after work tasks.

Independent quality audits are conducted to verify that the task quality controls are operating effectively.

Construction projects may execute a work task multiple times in a project, in which case a series of quality inspections are required for each work task.

Independent quality control audits are conducted to verify that the task quality controls are operating effectively.

### **IDENTIFICATION OF QUALITY INSPECTED WORK TASKS**

A listing of project work tasks is included on the Quality Control work task List and included as an exhibit in this subsection.

### **REQUIRED INSPECTIONS FOR EACH WORK TASK**

Each work task is subject to a series of inspections before, during, and at completion as described below. Results of inspections are recorded.

#### **PREPARATORY SITE INSPECTION**

The Superintendent performs a quality inspection of the work area and:

- Assesses completion of required prior work
- Verifies field measurements
- Assures availability and receiving quality inspection status of required materials
- Identifies any nonconformances to the requirements for the task to begin
- Identifies potential problems

## Questions? Call First Time Quality 410-451-8006

### **TASK-READY INSPECTIONS**

For each work task, the Superintendent or a qualified inspector performs job-ready quality inspections to ensure that work activities begin only when they should begin. Job-ready quality inspections verify that conditions conform to the project quality requirements.

### **WORK IN PROCESS QUALITY INSPECTIONS**

For each work task, the Superintendent or a qualified inspector performs an initial work in process inspection when the first representative portion of a work activity is completed.

Selected Pages

**[CompanyName][CompanySuffix]  
Work Task Work Order Form**

Version 20131125

Request Date :	Fixed Price :
----------------	---------------

Company Name:	Location:
Address:	Contract Number: [ProjectNumber]
City State Zip Code:	Contact Person:
Telephone Number:	Email Address:
Fax Number:	Contact Phone Number:

**Description of Work and Explanation for Repairs and Parts**

Service Dates:					
Labor Hours:					
Description/Explanation:					
Compliance Verification	<input type="checkbox"/> Compliance with initial job-ready requirements <input type="checkbox"/> Compliance with material inspection and tests <input type="checkbox"/> Compliance with work in process first article inspection requirements <input type="checkbox"/> Compliance with work in process inspection requirements <input type="checkbox"/> Compliance with work task completion inspection requirements <input type="checkbox"/> Compliance with inspection and test plan				

**Verification of Work Task Completion (sign and date)**

Supervisor Sign and date*:	Feature of work verified complete to specifications (sign and date):
----------------------------	--

\* On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.

**Completion of Work Order: To be Signed Off by Customer**

Customer Signature: (Sign and Date)	
--	--



# QUALITY MANUAL

## TABLE OF CONTENTS

<b>1. Quality System Management and Responsibilities .....</b>	<b>6</b>
1.1. Overview.....	6
1.2. [CompanyName][CompanySuffix] Quality Policy .....	6
1.3. Quality Duties, Responsibilities, and Authority .....	6
1.4. Quality System Performance Measures .....	9
1.5. Customer Satisfaction Performance Measures .....	9
1.6. Exceptions.....	9
<b>2. Project Quality Assurance/Quality Control Plan .....</b>	<b>10</b>
2.1. Overview.....	10
2.2. [CompanyName] Project License and Qualification Requirements .....	10
2.3. Project Personnel and Qualifications .....	11
2.4. Project Quality Assurance/Quality Control Plan.....	11
2.5. Identification of Quality Controlled Work Tasks .....	12
2.6. Project Quality Inspection and Test Plan.....	12
2.7. Project Quality Communications Plan .....	12
2.8. Project Quality Training Plan .....	12
2.9. Customer Training On Operation and Maintenance .....	12
2.10. Project Records and Documentation Plan.....	13
2.11. Project Audit Plan .....	13
<b>3. Contract Specifications .....</b>	<b>14</b>
3.1. Overview.....	14
3.2. Contract Technical Specifications.....	14
3.3. Contract Drawings .....	14
3.4. Contract Submittals.....	14
3.5. Customer Submittal Approval .....	16
3.6. Contract Warranty.....	16
3.7. Contract Review and Approval .....	17
<b>4. Design Review and Control .....</b>	<b>18</b>
4.1. Overview.....	18
4.2. Design Input Review .....	18
4.3. Project Design Quality Assurance/Quality Control Plan .....	18
4.4. Design Progress Reviews .....	19
4.5. Design Output Verification and Approval.....	19
<b>5. Project-Specific Quality Standards .....</b>	<b>20</b>
5.1. Overview.....	20
5.2. Regulatory Codes.....	20

## Questions? Call First Time Quality 410-451-8006

5.3. Industry Quality Standards .....	20
5.4. Material and Equipment Specifications.....	20
5.5. Work Process Specifications.....	21
5.6. Controlled Material Identification and Traceability .....	21
5.7. Measuring Device Control and Calibration.....	21
5.8. [CompanyName] Quality Standards .....	22
5.9. Application of Multiple Sources of Specifications .....	22
<b>6. Project Purchasing .....</b>	<b>23</b>
6.1. Overview.....	23
6.2. Qualification of Outside Organizations and Company Departments .....	23
6.3. Quality Responsibilities of Key Subcontractor and Supplier Personnel .....	24
6.4. Requirements for Subcontractor QC Plan .....	25
6.5. Subcontractor and Supplier Quality Policy .....	25
6.6. Project Subcontractor and Supplier List .....	26
6.7. Purchase Order Requirements .....	26
6.8. Project Purchase Order Approvals .....	26
<b>7. Process Controls .....</b>	<b>27</b>
7.1. Overview.....	27
7.2. Project Startup and Quality Control Coordination Meeting.....	27
7.3. Preparatory Project Quality Assurance/Quality Control Plan Planning.....	27
7.4. Weekly Quality Planning and Coordination Meetings.....	28
7.5. Process Control Standards.....	28
7.6. Daily Quality Control Report.....	30
7.7. Monthly Quality Control Report.....	30
<b>8. Inspections and Tests.....</b>	<b>31</b>
8.1. Overview.....	31
8.2. Required Work Task Quality Inspections and Tests.....	31
8.3. Material Inspections and Tests.....	31
8.4. Work in Process Inspections.....	32
8.5. Work Task Completion Inspections .....	32
8.6. Inspection of Special Processes .....	33
8.7. Independent Measurement and Tests .....	33
8.8. Commissioning Functional Acceptance Tests.....	33
8.9. Hold Points for Customer Inspection.....	33
8.10. Quality Inspection and Test Specifications.....	33
8.11. Inspection and Test Acceptance Criteria .....	33
8.12. Inspection and Test Status.....	34
8.13. Independent Quality Assurance Inspections .....	34
8.14. Inspection and Test Records.....	34
8.15. Project Completion and Closeout Inspection .....	35
<b>9. Nonconformances and Corrective Actions.....</b>	<b>37</b>
9.1. Overview.....	37

## Questions? Call First Time Quality 410-451-8006

9.2. Nonconformances .....	37
9.3. Corrective Actions .....	38
<b>10. Preventive Actions.....</b>	<b>40</b>
10.1. Overview.....	40
10.2. Identify Preventive Actions for Improvement .....	40
10.3. Train Preventive Actions for Improvement .....	40
<b>11. Quality System Audits.....</b>	<b>42</b>
11.1. Overview.....	42
11.2. Project Quality System Audit.....	42
11.3. Company-wide Quality System Audit .....	42
<b>12. Record and Document Controls.....</b>	<b>43</b>
12.1. Overview.....	43
12.2. Quality System Documents .....	43
12.3. Document Controls.....	43
12.4. Record Controls .....	44
<b>13. Appendix .....</b>	<b>45</b>
13.1. Definitions of Terms .....	45

Selected Pages

## 7. PROCESS CONTROLS

### HOW WORK IS CARRIED OUT

#### 7.1. OVERVIEW

The construction process plan defines how project work is to be done and approved for the overall project. The construction process plan is communicated to all key personnel, subcontractors and suppliers in a startup meeting. As the project proceeds, work task plans provide additional details of how each individual work task is carried out. Work tasks planning meetings are used to communicate expectations of the work task plan to key personnel responsible for carrying out the work task.

#### 7.2. PROJECT STARTUP AND QUALITY CONTROL COORDINATION MEETING

Prior to the commencement of work, the Project Manager holds a meeting to discuss and coordinate how project work will be performed and controlled. Key personnel from [CompanyName], subcontractors and suppliers meet to review expectations for project quality results as well as quality assurance and quality control policies and procedures including:

- Key requirements of the project
- The Project Quality Assurance/Quality Control Plan
- Required quality inspections and tests
- The project submittal schedule
- Quality policies and heightened awareness of critical quality requirements
- Project organization chart and job responsibilities
- Methods of communication and contact information
- Location of project documents and records

#### 7.3. PREPARATORY PROJECT QUALITY ASSURANCE/QUALITY CONTROL PLAN PLANNING

##### 7.3.1. WORK TASK REQUIREMENTS REVIEW

In preparation for the start of an upcoming work task, the Superintendent reviews an integrated and coordinated set of documents that collectively define quality requirements for the work task including:

- Objectives and acceptance criteria of the work task
- Quality standards that apply to the work task
- Work instructions, process steps, and product installation instructions that apply to the work task
- Shop drawings
- Submittals
- Tools and equipment necessary to perform the work
- License, certification, or other qualification requirements of personnel assigned to work
- Required records of the process and resulting product
- The subcontractor contracted to perform the work, if applicable
- Customer contract requirements
- Required quality inspections and tests
- Method for clearly marking nonconformances to prevent inadvertent use
- Location of quality system records and documents
- Personnel training

## Questions? Call First Time Quality 410-451-8006

### 7.3.2. PREPARATORY SITE INSPECTION

The Superintendent also performs a quality inspection of the work area and:

- Assesses completion of required prior work
- Verifies field measurements
- Assures availability and receiving quality inspection status of required materials
- Identifies any nonconformances to the requirements for the work task to begin
- Identifies potential problems

### 7.3.3. WORK TASK PREPARATORY QUALITY PLANNING MEETINGS

Prior to the start of a work task, the Superintendent conducts a meeting with key company, subcontractor personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives.

During the meeting, the Superintendent communicates the work task quality requirements and reinforces heightened awareness for critical requirements. Topics for a work task quality plan meeting include:

- Conflicts that need resolution
- Required quality documents and a verification of availability to personnel carrying out, supervising, or inspecting the work task
- Record keeping requirements and the availability of necessary forms
- Review methods and sequences of installation
- Special details and conditions
- Standards of workmanship
- Heightened awareness of critical quality requirements
- Quality risks
- Work tasks quality inspection form

### 7.4. WEEKLY QUALITY PLANNING AND COORDINATION MEETINGS

The Superintendent conducts a meeting with key company, subcontractor and supplier personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives.

The meeting is held on a nominal weekly schedule. During the meeting, the Superintendent facilitates coordination among the participants, communication among the participants, and reinforces heightened awareness for critical requirements.

The Superintendent maintains a record of the meeting event on the Daily Quality Control Report.

## 9. NONCONFORMANCES AND CORRECTIVE ACTIONS

### 9.1. OVERVIEW

Should a nonconformance be identified by an inspection there is a systematic method to control the item, correct it, and ensure that project quality is not adversely impacted by the event.

A nonconformance is any item that does not meet project specifications or [CompanyName] Quality System requirements.

### 9.2. NONCONFORMANCES

#### 9.2.1. MARKING OF NONCONFORMANCES AND OBSERVATIONS

When the Quality Manager, Superintendent, inspector, or customer identifies a nonconformance or an observation, the item is quickly and clearly marked by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

#### 9.2.2. CONTROL THE CONTINUATION OF WORK

After the item is marked, the Superintendent determines if work can continue in the affected area:

**CONTINUE WORK:** When continuing work does not adversely affect quality or hide the defect, work may continue in the affected area while the disposition of the item is resolved. The Superintendent may place limitations on the continuation of work.

**STOP WORK ORDER:** When continuing work can adversely affect quality or hide the defect, work must stop in the affected area until the disposition of the item resolved. The Superintendent identifies the limits of the affected area. The Superintendent quickly and clearly identifies the boundaries of the stop work area.

#### 9.2.3. NONCONFORMANCE REPORT

##### 9.2.3.1. RECORDING OF NONCONFORMANCES

If nonconformances or observed items exist by the work task completion inspection, the Superintendent or inspector records the nonconformances on a nonconformance report.

The Superintendent sends the nonconformance report to the Quality Manager.

##### 9.2.3.2. QUALITY MANAGER DISPOSITION OF NONCONFORMANCE REPORTS

When the Quality Manager receives a Nonconformance Report, he or she makes an assessment of the affect the reported nonconformance has on form, fit, and function. The Quality Manager may assign a disposition of either:

**Questions? Call First Time Quality 410-451-8006**

## **List of Included Forms**

### **Standard Forms:**

- Point Of Contact List
- Project Organization Chart
- Project Quality Communications Plan
- Quality Manager Appointment Letter
- Project Manager Appointment Letter
- Superintendent Appointment Letter
- Personnel Certifications and Licenses
- Project Personnel Resumes
- Project Subcontractor and Supplier List
- Training Plan
- Training Log
- Regulatory Codes and Industry Standards
- Project Regulatory Building Codes
- Controlled Materials Form
- Metals Material Receiving Inspection Report
- Material Inspection and Receiving Report
- Inspection and Testing Standards
- Quality Inspection and Test Plan
- Test Equipment Calibration Plan and Log
- Quality Controlled Work Task List
- Daily Production Report
- Work Task Inspection Form
- Nonconformance Report
- Punch List
- Project Completion Inspection Form
- System Document Control Form
- Project Records Control Form
- Project Quality System Audit Form

<b>[CompanyName][CompanySuffix]</b> <b>Nonconformance Report</b> <small>Version 20131125</small>		
Nonconformance Report Control ID	Project ID	Project Name
	[ProjectNumber]	[ProjectName]
Preparer Signature/ Submit Date		Quality Manager Signature / Disposition Date
Description of the requirement or specification		
Description of the nonconformance, location, affected area, and marking		
Disposition	<input type="checkbox"/> Replace <input type="checkbox"/> Repair <input type="checkbox"/> Rework <input type="checkbox"/> Use As-is	
	Approval of disposition required by customer representative? Yes <input type="checkbox"/> No <input type="checkbox"/> Customer approval signature /date: _____	
Corrective Actions	<input type="checkbox"/> Corrective actions completed Name/Date: _____	
	Customer acceptance of corrective actions required? Yes <input type="checkbox"/> No <input type="checkbox"/> Name/Date: _____	
Preventive Actions		
	<input type="checkbox"/> Preventive actions completed Name/Date: _____	

Selected Pages



**Industry-Specific Information  
Available by Division**

<b>03 Concrete</b>	<b>08 Openings</b>	<b>27 Communications</b>
<b>04 Masonry</b>	<b>09 Finishes</b>	<b>28 Electronic Safety and Security</b>
<b>05 Metals</b>	<b>21 Fire Suppression</b>	<b>31 Earthwork</b>
<b>06 Wood Plastic Composite</b>	<b>22 Plumbing</b>	<b>32 Exterior Improvements</b>
<b>07 Thermal and Moisture Protection</b>	<b>23 HVAC</b>	<b>33 Utilities</b>
	<b>26 Electrical</b>	



**For More Information:  
Contact: FirstTimeQuality**

**410-451-8006**

[www.FirstTimeQuality.com](http://www.FirstTimeQuality.com)

[EdC@FirstTimeQuality.com](mailto:EdC@FirstTimeQuality.com)