



h Essentials QA/QC Plan Sample (Canadian Standards)

Good for smaller projects and bid qualifications

*Has All the Essential Elements of a well-founded
Quality Control Plan*

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PROJECT-SPECIFIC PLUMBING QUALITY PLAN

TABLE OF CONTENTS

A. [CompanyName] Quality Policy	3
B. Key Elements of the Plumbing Quality Plan.....	4
C. Project Quality Coordination and Communication.....	7
D. Project QC Personnel.....	11
Project QC Job Position Assignments	11
Duties, Responsibilities, and Authority of QC Personnel.....	11
Quality Responsibilities	11
Project QC Organization Chart	14
E. Personnel Qualifications	15
Personnel Certification Requirements	16
Training.....	16
F. Qualification of Third Party Inspection/Testing Companies and Subcontractors and Suppliers	18
Qualification of Testing Laboratories	18
G. Plumbing Project Quality Specifications.....	20
Compliance with Industry Plumbing Standards.....	21
H. Plumbing Inspection and Test Plan	24
Inspection and Testing Plumbing Standards.....	25
Control of Inspection, Measuring, and Test Equipment.....	26
I. Plumbing Work Task Quality Inspections	28
Work Tasks Series of Inspections	28
Daily Quality Control Report.....	28
J. Quality Control of Corrections, Repairs, and Nonconformances	32
K. Project Completion Inspections	34
L. Quality Assurance Surveillance.....	36
M. Control of Quality Records and Documents.....	38
N. Servicing and Warranty	39

B. KEY ELEMENTS OF THE PLUMBING QUALITY PLAN

Key elements of the [CompanyName] Quality Assurance/Quality Control Plan include:

Quality Management and Responsibilities. [CompanyName] fully integrates its quality management system into the organizational structure and performance management systems for each project. We:

- Maintain a documented quality system consisting of a quality manual with policies and procedures.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every project
- Systematically maintains quality system documents and records.

Quality Control Personnel. [CompanyName] fully integrates its quality management system into the organizational structure and performance management systems for each project. We:

- Appoint a Quality Manager, Superintendent, and Project Manager to each project, each with well-defined quality responsibilities and the authority to carry them out.
- Have well-defined quality responsibilities for every employee with specific quality responsibilities for key job positions.
- Plan project quality records and documentation that will be maintained.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every project
- Enforce policies that monitor work conditions before and during work so that quality results are assured.

Project Quality Coordination and Communication. [CompanyName] tightly controls the construction process to ensure quality results. We:

- Plan quality communications through meetings, reporting requirements, and points of contact.
- Have a project startup meeting to communicate project goals and expectations.
- Conduct preparatory meetings in advance of each scheduled work task to communicate requirement details and coordinate work activities.

COMPLIANCE WITH INDUSTRY PLUMBING STANDARDS

Codes that may apply to this project include those listed below.

Regulatory Codes and Industry Standards			
Division	Description	Reference Standard No.	Reference Standard Title
22	National Building Code (NBC).	ULC S101	ULC-S101 Standard Methods for Fire Endurance Tests of Building Construction and Materials
22	Power Engineer Certificate Classes 1 to 4	CSA B51	Brazing Procedure and Performance Qualification
22	Power Engineer Certificate Classes 1 to 4	B52	CSA B52, Mechanical Refrigeration Code.
22	Class A or B gas fitter certificate	NACE SP 0169 CSA Z245.20M	External Coating System Characteristics Relative to Environmental Conditions
22	Class A or B gas fitter certificate	CAN/CSA-Z662	Pipe Hangers and Supports - Materials, Design and Manufacture, Selection, Application, and Installation
22	The Canadian Welding Association	G40.20-13/G40.21-13	Beveling, alignment, heat treatment, and inspection of weld
22, 33	Class A or B gas fitter certificate	CSA B149.1	Natural gas and propane installation code
22	Technical Standards and Safety Authority (TSSA)	CSA. B139-04	Fuel-Burning Equipment
22	General Permits required for plumbers, electricians etc.	B355-M81	Safety Code for Elevating Devices for the Handicapped
22	Industry Training Authority (ITA) Canada	ISO 14367	Non controllable backflow preventer with different pressure zones.
22, 33	American Water Works Association	AWWA C652	Disinfection of Water Storage Facilities

I. PLUMBING WORK TASK QUALITY INSPECTIONS

[CompanyName] identifies a list of work tasks, phases of production, which will be quality controlled.

WORK TASKS SERIES OF INSPECTIONS

Each work Task is subject to a series of inspections; before, during, and after the work is complete. Each inspection verifies compliance with full scope of the relevant specifications; not limited to checkpoints for heightened awareness.

- The initial task-ready inspection occurs when crews are ready to start work 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 workmanship expectations. Work continues only when it does not adversely impact quality results.
- At completion of the Task an inspection verifies that work, materials, and tests have been completed in accordance with project quality requirements. When appropriate, functional tests are performed.

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

SPECIAL PROCESS INSPECTIONS

The Quality Manager identifies special processes where the results cannot be verified by subsequent inspection or testing and determines if continuous work in process inspections are required. For these special processes, a qualified inspector continuously inspects the work process.

MATERIAL QUALITY INSPECTION AND TESTS

Material quality inspections and tests ensure that purchased materials meet purchase contract quantity and quality requirements.

DAILY QUALITY CONTROL REPORT

J. QUALITY CONTROL OF CORRECTIONS, REPAIRS, AND NONCONFORMANCES

Should a problem occur in the quality of work, we systematically contain the issue and quickly make corrections. Our first action is to clearly mark the item by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

Then we expedite a corrective action that brings the workmanship or material issue into conformance by repair, replacement, or rework. Previously completed work is reinspected for similar nonconformances. In the event that we cannot correct the item to meet contract specifications, the customer will be notified and customer approval of corrective actions is required before proceeding.

Fixing problems found is not sufficient. [CompanyName] systematically prevents recurrences to improve quality. First enhanced controls and management monitoring are put into place to assure work proceeds without incident. Then using a structured problem solving process, [CompanyName] identifies root causes and initiates solutions. Solutions may involve a combination of enhanced process controls, training, upgrading of personnel qualifications, improved processes, and/or the use of higher-grade materials. Follow-up ensures that a problem is completely resolved. If problems remain, the process is repeated.

Nonconformances and their resolution are recorded on a Nonconformance Report form. A Nonconformance Report form exhibit is included in this subsection.

Selected Pages

Questions? Call First Time Quality 410-451-8006

[CompanyName] Nonconformance Report <small>Version 20141006</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: _____	

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LIST OF INCLUDED INSPECTION FORMS FOR PLUMBING

- **Plumbing Insulation**
- **Electric Domestic Water Heaters**
- **Facility Potable-Water Storage Tanks**
- **Facility Sanitary Sewerage**
- **Facility Storm Drainage**
- **Facility Water Distribution**
- **Fuel-Fired Domestic Water Heaters**
- **Plumbing Fixtures**

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Plumbing - Plumbing Insulation 22.07.00				
Project:	Phase:	Contract#:	Subcontractor:	Crew:

<p><u>Compliance Verification</u></p> <ul style="list-style-type: none"> <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 Task completion inspection requirements <input type="checkbox"/> Compliance with inspection and test plan <input type="checkbox"/> Compliance with safety policies and procedures <p>Reported Nonconformances and incomplete items:</p>	<p><u>FTQ 2TQ Heightened Awareness Checkpoints</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Plumbing and equipment tested and operational before applying Insulation <input type="checkbox"/> <input type="checkbox"/> Area to be insulated is free of rust// scale// dirt// and moisture <input type="checkbox"/> <input type="checkbox"/> Adhesive/Anchors/Staples/Wrapping utilized is compatible with Insulation type <input type="checkbox"/> <input type="checkbox"/> Insulation through penetrations maintains fire rating of structure <input type="checkbox"/> <input type="checkbox"/> Insulation protected from chafe at all supports and contact points <input type="checkbox"/> <input type="checkbox"/> Insulation protected from weathering and moisture intrusion <input type="checkbox"/> <input type="checkbox"/> Operation of valves and actuators not hindered by insulation <input type="checkbox"/> <input type="checkbox"/> Insulation joints sealed <input type="checkbox"/> <input type="checkbox"/> Cladding applied in high abuse/traffic areas <input type="checkbox"/> <input type="checkbox"/> Openings/Holes caused by testing closed/repaired
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FTQ Scores and Completion Sign-off

Field Mgmt.-91.45.01

Quality 5 4 3 2 1 *Notes:*

On-Time 5 4 3 2 1 *Notes:*

Safety 5 4 3 2 1 *Notes:*

Sign and date*: Cell # / ID #: _____ Signed: _____ Date: _____

Task has been has been verified complete and in compliance with contract drawings and specifications except for non-conformances and incomplete items reported above.

<u>Quality Score</u>	5 = 100% NO problems	4 = 1 minor problems	3 = Hotspot or 2-3 minor	2 = 6+ or major problems	1 = Excessive problems
<u>On-Time Score</u>	5 = On Time	4 = Late	3 = Late by 1 day	2 = Late by 2 days	1 = Late more than 2 days
<u>Safety Score</u>	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 4+ or major problem	1 = Injury



**For More Information:
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