

Logo

[Ref #]

5 November 2014

[Company]

Project Quality Management Plan

[Project Name]

This project quality management describes how the organization's quality policies will be implemented and how the project management team plans to meet the quality requirements set for the project.

PROJECT DETAILS

Project Name	[Project Name]
Contract Number	
Client	
Client's representative	
Main Contractor	[Company]
Project Address	
Project Start Date (planned)	
Project Completion Date (planned)	

REVISIONS AND DISTRIBUTION

This project quality management plan is distributed to registered copy holders both within and outside the Company. A list of registered holders is retained by the Project Manager who will ensure that revisions are issued to registered copy holders.

Where the need arises, unregistered copies of the Plan may be distributed, provided approval is obtained from the Project Manager.

The project quality management plan from time to time may require updates. Any amendment to this plan shall be informed to and approved by the project change control board prior to distribution.

Each added/changed page shall have the revision number and date of approval displayed on the bottom of the page.

This copy of the Project Quality Management Plan is issued to:

Mr./Miss/Ms./Mrs. _____

Company _____

Date _____

This copy is registered as copy number _____ and is subject to updating.

This copy is unregistered and will NOT be updated.

COPYRIGHT: This document is the property of [Company] and may not be reproduced, copied or transmitted without prior permission of the Project Manager.

For record purposes a circulation, issue and revision list will be held and maintained by the project.

Project Quality Management Plan

01	First issue Project Quality Management Plan	Prepared by: Marc Arnecke, PMP	Date:
		Approved by:	Date:
02		Prepared by:	Date:
		Approved by:	Date:
03		Prepared by:	Date:
		Approved by:	Date:
04		Prepared by:	Date:
		Approved by:	Date:
05		Prepared by:	Date:
		Approved by:	Date:
06		Prepared by:	Date:
		Approved by:	Date:
07		Prepared by:	Date:
		Approved by:	Date:
08		Prepared by:	Date:
		Approved by:	Date:
09		Prepared by:	Date:
		Approved by:	Date:
10		Prepared by:	Date:
		Approved by:	Date:

TABLE OF CONTENTS

Project Details	1
Revisions and Distribution.....	1
Table of Contents	1
Introduction.....	1
Project Scope of Works (Brief Description)	1
Quality Statement	1
Purpose of Quality Management.....	1
Quality Management Approach.....	1
Project Quality Objectives.....	1
Performance and Quality	1
Budget	1
Time to Completion.....	1
Basic Processes of Quality Management	1
Tools and Techniques.....	1
Laws, Regulations and Guidelines.....	1
Project Quality Control.....	1
Initial QC Inspection	1
Follow-Up QC Inspection	1
Final Inspection	1
Inspection Types	1
Material Receiving Inspection	1
Material Storage Inspection	1
Off-Site Inspection.....	1
Workmanship Inspection.....	1
Equipment and Plant Inspections.....	1
Testing.....	1
General Testing Procedure	1
3rd Party Testing	1
Test Results.....	1
Test Equipment and other Equipment Calibration and Maintenance	1
Quality metrics	1



Project Quality Management Plan

- Deficiencies and Corrective Action 1
 - Site Observation Report (SOR) 1
 - Non-Conformance Report (NCR) 1
 - Corrective Action System 1
- Quality Assurance..... 1
 - The Targets of Quality Assurance 1
 - Preparatory QA Meeting..... 1
 - Material and/or Vendor Approval 1
 - Approval Submittals 1
 - Review Submittals 1
 - Information Submittals..... 1
 - Typical Material and/or Vendor Submittal Document 1
 - Submittal Review and Registration 1
 - Submittal Approval 1
- Work Execution Procedures..... 1
 - Method Statements..... 1
 - Inspection and Test Plans (ITP) and Intervention Codes 1
- Continuous Improvement 1
 - Step 1 - Current process status assessment 1
 - Step 2 - Current process status analysis 1
 - Step 3 - Definition of the desired target condition..... 1
 - Step 4 - Check 1
- Project Records and Documentation 1
 - Record Keeping 1
 - Registration 1
 - Numbering System 1
 - Archive..... 1
 - Electronic Data 1
 - Filing System 1
 - Data Integrity..... 1
 - Data Backup..... 1
- Acceptance of Deliverables 1
- Definitions 1
- Acronyms and Abbreviations 1



Project Quality Management Plan

List of Attachments1

INTRODUCTION

The Project quality management Plan documents the necessary information required to effectively manage product and project quality from planning to closing. It defines the project's quality policies, procedures, criteria for and areas of application, and roles, responsibilities and authorities.

The quality management plan is created during the planning phase of the project and will be constantly updated if required.

The intended audience is the project sponsor, project manager, project team, and any senior leaders whose support is needed to carry out the plan.

Project Scope of Works (Brief Description)

This project quality management plans is written for the [Project Name].

The project consists of:

- xxx
- xxx
- xxx
- ...

Quality Statement

To strive for quality excellence in order to achieve customer satisfaction by providing deliverables to the standards set by the client and to contribute to improve the company's competitiveness.

Purpose of Quality Management

The project quality management plan for the [Project Name] provides guidance to establish the activities, processes, and procedures for ensuring a quality product upon the conclusion of the project.

The purpose of this plan is to:

- Ensure quality is planned,
- Define how quality will be monitored and controlled,
- Improve processes and procedures,
- Implement acceptable quality standards

Thus the progress and quality of construction will be monitored and controlled and unnecessary cost and other effects of re-works will be reduced as far as possible or avoided if possible and potential deficiencies or future problems will be identified.

Quality Management Approach

Quality control under this document is defined as a system of planned activities that ensures that the product of the project meets or exceeds the client requirements, specifications and expectations. The system includes inspections, verifications, audits and evaluations of materials and workmanship required to document the grade of quality of the constructed product.

Quality management shall focus on both **product quality** and **project quality**

Product quality in this context basically is concerned about **what** is delivered, and therefore focuses on the contractual product specifications and requirements.

Project quality more is concerned about **how** the product is delivered, and focuses on the production procedures.

The quality manager will be responsible for working with the project team to define metrics, measure, and analyze results. These measurements will be used as one criterion in determining the success of the project and must be reviewed by the project sponsor.

Metrics will include:

- Schedule
- Resources
- Cost
- Material waste
- Product performance
- Customer Satisfaction (as a result of field trials)

Necessity for quality improvements will be identified by any member of the project team. Each recommendation will be reviewed to determine the benefits of implementation and how the improvement will impact the product or processes. If an improvement is implemented the project manager will update all project documentation to include the improvement and the quality manager will update the organizational documentation the improvement affects.

The quality system in general shall follow the **Plan – Do – Check (Study) – Act** approach.

Project Quality Objectives

The quality system has been designed to ensure that the quality objectives and policies of the company will be implemented and are in line with the requirements of the ISO 9001:2008. The major quality objectives are outlined below. Minor specific objectives may be intimated throughout the project. Objectives shall not be vague and must be measurable.

Performance and Quality

The deliverables of the project must be fit to use and have to meet the purpose for which they were intended. It is not the responsibility of the quality control department to inspect quality in the product, but the responsibility of the entire team to build quality in the product.

Budget

The project must be completed without exceeding the authorized expenditure since financial sources are not inexhaustible. Proper attention to completion within cost budget is essential and project completion automatically becomes unsuccessful if funds run out before completion. It is the responsibility of the entire project team to be economical with the use of resources.

Time to Completion

Actual progress has to match or beat planned progress. All significant stages of the project must take place no later than their specified dates, to result in total completion on or before the planned finish date. The timescale objective is extremely important since project completion automatically becomes unsuccessful if time runs out before completion. It is the responsibility of the entire project team to start and complete their tasks upon authorization within reasonable time.

The implementation of the quality management system and its effectiveness is ascertained by continuous monitoring, management review and periodical audits.

Corrective and preventive action shall ensure a continuous improvement of the quality management system in place.

The target is the implementation of a system which is improving continuously.

Basic Processes of Quality Management

Processes and procedures are established to meet the requirements of the ISO 9001:2008 as well as the standards and requirements set out for the project.

Processes are related activities that produce a specific output. Processes may cross departments or functional areas. Process maps shall be created to graphically display a certain process. Processes indicate **who** is responsible to perform activities (department, division), **what** major activities are performed, and **when** it is triggered.

Procedures define the specific instructions necessary to perform an activity or part of a process and can take the form of a work instruction, a method statement or a quick reference guide. A Procedure usually addresses only single tasks and will be created and circulated in the form of method statements. This separation enables procedure components to be compiled into special procedure manuals for specific purposes.

Managing project quality requires an approved quality plan encompassing three major quality processes. The quality plan is developed and approved during the project planning stage to confirm major deliverables/milestone acceptance criteria and manage approved project processes.

The three major quality processes are:

- Planning quality management,

- Control quality,
- Perform quality assurance and
- Improve Quality.

Tools and Techniques

The most common tools used for quality control and quality assurance are:

- Field monitoring,
- Inspecting,
- Testing,
- Auditing,
- Reporting,
- Collecting and reviewing technical and laboratory data,
- Identifying and documenting defects and necessary repairs,
- Compiling applicable data, log-files, as-built documents and photos.

Laws, Regulations and Guidelines

Strict adherence to this plan in no way absolves any party from any obligations or responsibilities under applicable laws and regulations.

The regulations applicable to this project include, but are not limited to:

- xxx law,
- Agreed Construction Standard,
- Regulations by local Civil Defence and other bureaus and authorities.
- Applicable occupational safety and health regulations,
- Applicable environmental protection regulations,
- Contractual documents.

PROJECT QUALITY CONTROL

Quality control (QC) is a set of activities for ensuring and verifying quality in products. Quality control activities focus on identifying defects in the actual products produced.

QC inspections shall be conducted as a three-phase control process.

- Initial inspection
- Follow-up inspection
- Pre-final / final inspection

This inspections shall be carried out for each work item regardless of whether that particular item was or will be produced by the contractor or its sub-contractors.

Implementation of the three-phase control process vouches for compliance with approved plans, specifications and requirements. Each single control phase is important for achieving the required level of quality, whereas the preparatory QA meeting and initial inspections are particular important to make provision against re-works and its effects such as failure, cost, delay and others.

Initial QC Inspection

Initial QC inspection(s) will be carried out by the QC staffs after a work item has been produced for the first time. Thus the QC staff will validate that the work is in compliance with applicable specifications and establishes an acceptable level of workmanship.

The inspection shall be conducted by means of the inspection checklist appropriate for the work item. The results of the inspection shall be recorded in the inspection register.

Once a product or intermediate product (whatever applicable) is ready for the first time and in compliance with the inspection and test plan (ITP) for a specific work feature an inspection and test request shall be transmitted to the client or his representative and a copy of the initial inspection checklist shall be attached thereto. The initial inspection result shall be registered in the inspection register.

Follow-Up QC Inspection

The purpose of the follow-up QC inspection is to ensure continuous compliance to applicable specifications, requirements and adherence to established methodologies as well as an acceptable level of workmanship.

Follow-up QC inspection(s) shall be carried out by the QC staff regularly during the production phase of works. The follow-up inspection shall be carried out at variable intervals during the execution of works and shall cover all different stages of the activity including

- Activity preparation,
- Activity execution and
- Result control.

Any identified discrepancy will be resolved with the approved plan and/or methodology and shall be re-inspected if required prior to the commencement of the particular activity or any other activity which makes the later rectification of the discrepancy virtually impossible.

The inspection shall be conducted by means of the inspection checklist appropriate for the work item. The results of the inspection shall be recorded in the inspection register.

Once a product or intermediate product (whatever applicable) is completed, an inspection and test request shall be transmitted to the client or his representative and a copy of the initial inspection checklist shall be attached thereto.

Follow-up QC inspections shall be registered in the inspection register.

Final Inspection

Upon completion of a specific work item a pre-final inspection shall be carried out by the QC staffs and client or his representative.

The purpose of this inspection shall be to validate the result of the works.

Outstanding and nonconforming items will be identified and documented in a punch-list. After rectification of all deficiencies recorded during the pre-final inspection the client or his representative will be notified by means of ITR to schedule the final inspection.

The final inspection result shall be registered in the inspection register.

Further re-inspection on the specific item is not foreseen, exceptional resumption of outstanding work and/or execution of instructed additional works.

Inspection Types

Material Receiving Inspection

All materials to be used permanently must be in accordance with the applicable project specifications and their use must be approved in advance by the client or his representative.

QC staff as early as possible but latest one workday after delivery shall inspect all construction materials prior to use.

In order to plan and arrange timely material inspections, the procurement in charge will provide updated delivery information frequently. 2 workdays prior to any material delivery the procurement in charge will prepare the inspection and test request with relevant documents attached thereto and pass it to the document controller. After registration the document

controller will pass the document(s) to the material inspector promptly and to the client or his representative if required.

Inspection criteria particularly include

- Material identification and documentation (may include but not limited to),
 - Submittal review sheet,
 - Delivery notes,
 - Test results,
 - Vendor certifications,
 - Certificates of origin,
 - ...
- Signs of damage,
 - Repairable,
 - Non-repairable,
- Completeness,
- Compliance with specifications.

Results of the material receiving inspections shall be documented in the material receiving register.

Any identified discrepancy must be resolved prior to re-inspection; otherwise if rectification is not possible, the supplier shall remove the un-approved material immediately.

The Storekeeper will tag newly delivered material highly visible as “**Uninspected - Don’t Use**”. After the inspection is passed and inspection result is verified, the tag shall be removed and material can be used.

Material Traceability

Upon successful inspection the material shall be tagged/marked (whatever applicable) with following information

- Date of successful inspection,
- Inspector Name,
- ITR number,
- Application area

The user of the material shall include the ITR number into his daily activity report.

Material Storage Inspection

QC staff shall continuously watch over and inspect frequently the storage and handling of all construction materials. Inspection criteria particularly include storage and handling of material in accordance with manufacturer's recommendations as guidelines.

Off-Site Inspection

If required material sources and fabrication facilities shall be inspected by QC staff to verify that specifications are followed and requirements are implemented. Thus the delivery of unacceptable materials or intermediate products at site shall be avoided.

Workmanship Inspection

QC staff will periodically inspect and verify workmanship to ensure that installation, fabrication or whatsoever is executed in line with the specifications and requirements. This inspection is particular important on work items which cannot be rectified later or reworks would become extra difficult and cost intensive.

Workmanship inspection may include both on-site and off-site.

Equipment and Plant Inspections

QC staffs shall watch over all devices, equipment, machines and plants requiring periodical calibration.

- 1) When made available at site it shall be inventoried in the inventory register.
- 2) Calibration and maintenance shall be monitored and controlled regularly. 3rd party calibration/maintenance certificates shall be provided (if applicable).
- 3) On the first working day of each month the QC checks the inventory list and reminds the relevant departments of such calibration certificates that expire within the next 6 weeks.
- 4) Unsuitable items shall be tagged as "defect", "calibration expired" (or whatever applicable) and not be used anymore unless the item is repaired, maintained and calibrated.

Testing

Testing shall be performed and recorded and test results shall be verified under the responsibility of QC staffs to ensure that specifications and requirements are met.

Prior to the first execution of a new work item testing methods and frequency of testing shall be reviewed and communicated to concerned staffs by means of approved ITP.

General Testing Procedure

- 1) Not less than 24 hrs. prior to any testing, the client or his representative shall be notified in accordance to the approved ITP.
- 2) Prior to any test the QC staff shall verify that
 - a) Required equipment is available and calibrated,
 - b) Testing criteria and procedure are known,
 - c) Personnel are capable to perform test and operate equipment.
- 3) Upon verification of requirements the test shall commence and be witnessed and documented by QC staffs using a test specific form. Standard forms provided by a 3rd party testing organization (if applicable) shall be acceptable in principal.
- 4) All test results shall be
 - a) Registered in the "Test Register" and compiled in the quality file,

- b) Verified by QA staffs,
 - c) Submitted to the client or his representative (if required).
- 5) Any failing test result shall be recorded and repeated as early as possible (unless otherwise agreed). Failed tests shall be subject to review with regards to process improvement.

3rd Party Testing

If testing by a third party laboratory is required, whether on-site or off-site, QA staffs shall verify 3rd party's compliance to applicable standards and therefore shall review laboratory's historic data such as QA & QC procedures, calibration records, logs for similar testing etc. (whatever applicable). Third party testing organizations not being able to provide such records shall be avoided if possible. In case of regular testing the review maybe carried out periodically.

A 3rd party testing organization shall be capable to perform a required test within 2 workdays (if applicable) from receipt of samples.

In any case 3rd party test results shall be verified by their own senior laboratory personnel.

Test Results

The test record shall be submitted to the QC department within 48 hrs. after the test. Advance copies of completed tests sent by fax and/or email shall be deemed acceptable in order to proceed with the works.

Once a test results is received, the testing register shall be updated and the result shall be distributed by document controller and shall be verified by QC staffs as to:

- Completeness of documents,
- Observance of the specified testing procedures,
- Acceptability of results.

The Quality controller therefore generates a continuous control chart designed for the specific test data and verifies whether the results are within acceptable tolerance. The "rule of 7" is to be applied and feedback is to be provided to the appropriate department, if trends that fall under this rule are observed.

Test Equipment and other Equipment Calibration and Maintenance

Test and measurement equipment shall be regularly maintained and calibrated according to the manufacturer's specifications and recommendations.

Quality metrics

The applicable test metrics are defined in the contract, relevant standards or regulations and through requirements management.

A list of applicable quality metrics shall be obtained from client or his representative and regularly updated and distributed.

For each item following details shall be recorded:

- ID,
- Item name,
- UOM,
- Standard value,
- Acceptable tolerance.

Deficiencies and Corrective Action

The primary goal of the quality program defined in this document is the prevention of non-conformances, reduction of reworks and associated cost and continuous improvement of processes.

In the unfortunate event that non-conformance could not be prevented any identified deficiencies shall be resolved with the approved plan and/or method in a timely and cost-effective manner and re-occurrence shall be avoided to its maximum extend.

Principal: Overall quality shall be built in the product rather than to be inspected and rectified in the product.

Site Observation Report (SOR)

Significant deviations of any kind, that can be corrected on the spot but do not justify NCR at the discretion of the QC manager, shall be documented and communicated using a site observation report.

In case of recurrence an SOR requiring corrective action may be a precursor to an NCR. On the other hand, above average positive findings shall also be documented in the same way.

Each SOR shall be recorded in the lessons learned register.

Non-Conformance Report (NCR)

Identified executed insufficient workmanship or used materials not conforming to the specifications and/or requirements or other non-conformities which cannot be rectified on the spot shall be documented by QC staff in a non-conformance report and signed by the quality manager.

Each non-conformance report will be registered in the NCR register and passed to the quality manager and to the responsible/involved/executing department(s), sub-contractor(s), supplier(s) or whatever applicable.

As a non-conformity is corrected, an inspection request shall be filled out by the executor of the subject works and shall be passed to the document controller for registration and further actions. The NCR remains open until the non-conformance satisfactory is resolved, inspected and approved by the quality manager or his designee and client or his representative (if required).

For the avoidance of repetition each NCR also shall be included in the lessons learned register and shall be evaluated with regards to process improvement by the quality manager or his designee.

NCR root causes shall be evaluated by the responsible entity, categorized in four “M” categories and depicted in a cause-and-effect diagram.

The cause categories are:

- 1) **Man:** Anyone involved with the process
- 2) **Methods:** How the process is performed
- 3) **Machines:** Any equipment, tools, etc. required to accomplish the job
- 4) **Materials:** Any parts, products, intermediate products etc. used to produce the final product

Corrective Action System

For each deficiency as well as identified negative quality trends, observations, defects or whatsoever, corrective action reports shall be prepared. The quality manager or his designee evaluates those reports, registers them in the CAR Register and makes recommendations accordingly.

QUALITY ASSURANCE

The key aim of QA is to avoid respectively as the case may be continuously investigate issues and level-by-level develops a system to avoid future repetition of earlier issues, reduces related cost, improve workability and establishes a management structure to facilitate process improvement at an organizational level. Potentially existing process errors will be determined and corrective action taken wherever possible before the error effects in a critical way.

The Targets of Quality Assurance

- 1) Increase awareness of processes that could enhance organizational competencies.
- 2) Identify processes that need improvement.
- 3) Facilitate discussions to allow people sharing their experiences inside and outside their functional boundaries.
- 4) Prioritize processes to achieve continuous improvement.
- 5) Prevent deficiencies and it's impacts.

Preparatory QA Meeting

Preparatory QA Meeting(s) shall be arranged by the QC staffs at the beginning of each new work item and all accompanying activities. Client representative shall be invited, all concerned field staffs (key persons) involved in the production of the item shall attend.

In particular the preparatory meeting shall address

- Review of work plans,
- Review of operating procedures,
- Review of working conditions,
- Equipment check,
- Material check,
- Assessment of work sequences,
- Assessment of work methodology,
- Review of Inspection Sequence.

The purpose of this meeting is to verify that required plans, specifications and methodologies have been prepared, are approved and are available and known to the field staff before an activity or the production of a work item is started; equipment is appropriate for the intended use, fully functional and is calibrated if necessary and all appropriate arrangements have been made.

As part of the preparatory meeting the QC staff will verify that lessons learned (if any) during previous comparable activities have been implemented to avoid repetition of past problems.

Any identified discrepancy must be resolved with an approved plan and/or methodology prior to the production of the work item and prior to any other activity which makes the later rectification of the discrepancy virtually impossible.

Any differences of opinion in the interpretation of project requirements, specifications and methodologies will be settled with a view to the production stage of the feature.

Material and/or Vendor Approval

Submittals shall be prepared for any type of material or intermediate product intended for permanent use, installation or whatsoever and thereby becoming part of the ready product, regardless whether the item is produced on-site or off-site and regardless whether it is produced by the contractor, sub-contractor, any supplier or fabricator etc.

Generally it shall be the material characteristics being subject to submission and consequently approval, not the supplier or manufacturer. If however licenses, certificates, or special experiences etc. are needed for the production of certain materials, products or intermediate products for the execution of specialized works, than the vendor, sub-contractor or whatever applicable must be submitted for approval (e.g. fire alarm systems, firefighting systems, etc.).

Approval Submittals

Approval submittals are the type of submittal for conventional consideration. Examples of approval submittals include (but are not limited to) manufacturer's product data, catalogue cuts, shop drawings, samples, etc. In accepting an approval submittal it is confirmed that the details of the ready product, finishes and materials are consistent with the design concept, specifications and requirements.

Review Submittals

Review submittals are the type of submittal for presenting procedures, methods, techniques or sequences prior to implementation. Examples include (but are not limited to) working drawings (i.e. scaffolding, shoring...), proposed equipment, production methods, safety precautions, etc. In accepting such a submittal it is acknowledged that the proposed method etc. is sufficient to allow quality control and verification. Acceptance of this type of submittal does not relieve the contractor from the responsibility for insuring that the work is performed in accordance with the terms of the contract.

Information Submittals

Informational submittals demonstrate that the contractor has complied with some requirements and/or specifications. Examples include concrete batch records, daily reports, calibration certificates, test reports, etc. Action is not required for the contractor to proceed with the works. Although these submittals typically are not approved or rejected, but they still need to be

reviewed. If the provided information is determined not to comply with contractual documents, a non-conformance report may be issued.

Typical Material and/or Vendor Submittal Document

Complete material or vendor submittals generally may include (but are not limited to):

- Submittal cover sheet with
 - General information (reference number, date, submitter, contact details etc.)
 - Date when material will be needed at site,
 - Short material description,
 - Area of application,
 - Material source,
- Table of content,
- Corresponding plans, specifications and requirements,
- Catalogues or catalogue cuts,
- Data sheets,
- Shop drawings,
- Certifications and licenses,
- Work plans,
- QC plans and templates,
- Testing proposals,
- Diagrams, charts and curves,
- Reference letters,
- Operating manuals,
- Material samples,
- Company profile,
- Organization charts,
- ...

Submittals shall be prepared by the supplier, manufacturer, distributor or whoever supplies the material or intermediate product to the project.

Relevant information shall be highlighted.

Submittal Review and Registration

- a) Submittals shall be registered in the submittal register, and
- b) Either
 - a. If it is insufficient for review returned to the submitter for revision or
 - b. With minor comments and/or recommendations (if any) forwarded to the client or his representative.

Upon re-submission the designated staff will

- a. Update the submittal register,
- b. With minor comments and/or recommendations (if any) forwarded to the client or his representative.

Upon receipt of the client's approval, comments, or rejection (whatever applicable)

- a) The submittal register shall be updated accordingly,
- b) A copy of the material approval shall be returned to the submitter for his further action.

Submittal Approval

A material submittal approval generally does not extend to the means, methods, sequences, techniques, or construction procedures. Following the review, the conventional response is to approve, approve conditionally, or reject the submittal, but only insofar as the end-result conforms to the design concept and complies with the contract documents.

Possible submittal responses are:

- Approved,
- Approved as noted,
- Revise and Resubmit,
- Not Approved.

Work Execution Procedures

Method Statements

All final or intermediate products, whether produced by the contractor, sub-contractors or suppliers, require the implementation of approved processes and procedures (method statements), making use of appropriate equipment and control and management of materials and technical services.

Inspection and Test Plans (ITP) and Intervention Codes

ITPs shall be recommended for any permanent material, product or intermediate product by the manufacturer, supplier, sub-contractor, or otherwise by the technical manager. The ITP shall allow verification of features with regards to applicable specifications.

The ITP shall be submitted to the client or his representative for review along with the particular method statement for the production of a definable work item.

ITPs through the use of unambiguous intervention codes shall define hold points on particular subjects or situations.

R = Review

Documentation and records shall be available for verification at any time by client or contractor QA or QC staffs.

M = Monitor

An activity will proceed as scheduled, without advance notification, but is subject to client or contractor QA or QC staffs. Monitor as and when required. Monitor activities are intended for process verification, not product inspection.

W = Witness

A critical step in production or testing where it is desirable that client or contractor QA or QC staffs participate in the inspection in order to ascertain that the product complies with the specifications. Advance notification shall be given by the work executor. The work can proceed with or without the presence of client or contractor QA or QC staffs after the designated time has passed.

H = Hold

A critical step in production or testing where it is essential that client or contractor QA or QC staffs participate in the inspection in order to ascertain that the product complies with the specifications. Formal advance notification shall be given by the work executor. The work shall not proceed without the presence of client or contractor QA or QC staffs or a written waiver that presence is not required.

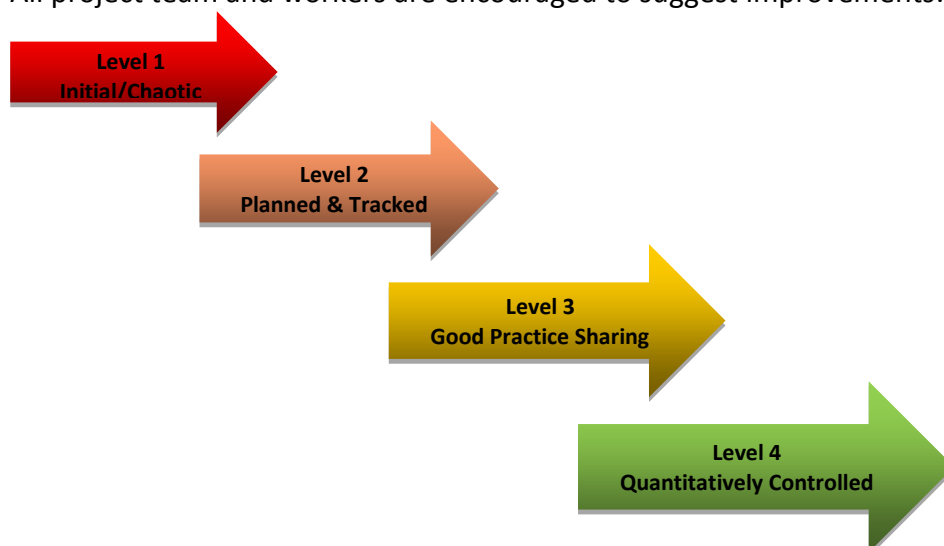
The Inspection Plan (IP) shall, at a minimum, include the following:

- Activity Name,
- Contractor/subcontractor performing the work,
- Construction characteristics to be inspected,
- Identification of witness and hold points for each characteristic described,
- Test sample request requirement (TSR) or inspection request (IR) submittal requirement.

Continuous Improvement

The QC & QA manager together with the project manager will review any instances where materials, components, assemblies, features of work, or completed products fail to meet the specifications and/or requirements, and will take appropriate action to prevent future occurrences.

All project team and workers are encouraged to suggest improvements.



Step 1 - Current process status assessment

- What business need is fulfilled by this process?
- What is the goal to update this process?
- How is the task currently done?
- What is its current level?
- Who are the acting people or roles?
- Where are the current processes defined, and who is authorized to approve changes?
- What are the boundaries?
- What other processes will be affected?
- What are the process enablers?

Step 2 - Current process status analysis

- What can be maintained?
- What can be adjusted?
- What needs to be replaced?

Step 3 - Definition of the desired target condition

- Where shall the new process be determined?
- Who shall be the acting persons or roles?
- What shall be the list of activities in the future?
- What are the new process boundaries? (may consequently result into adjustment of affecting and affected processes)

Step 4 - Check

- Is the goal of this process update met?
- Is the process understandable?
- Is it executable?

Is any of this 3 questions answered “no”, consequently the process has to be started over beginning from step 1.

PROJECT RECORDS AND DOCUMENTATION

The quality manager with the assistance of the document controller establishes and maintains the project documentation. The purpose of the project documentation is to maintain a complete set of relevant documents and records and basically is a compilation of drawings, calculations, specifications, reports, reviews, registers and logs, work orders, certifications, non-conformities, corrective actions and any other relevant records that provide information on the finished product.

Record Keeping

Activity executors are responsible for the completion of forms and checklists. Checklists shall be filled during the ongoing inspection.

Registration

All forms and checklists shall be passed to the document controller before the end of the workday. The document controller registers the documents and distributes them to the concerned departments as well as to the client or his representative (if applicable) promptly.

Numbering System

Each document of whatever nature and content must be provided with a clear and unique reference number.

The document classification and numbering system shall be agreed between both, contractor and client representative and applied henceforth. Any updates to the

Archive

The quality file shall be archived for future reference and the life time shall be in accordance with project as well as legal requirements.

Electronic Data

Filing System

All departments will file their documents (here softcopies) within the project's filing scheme. Hardcopies and electronic data shall be maintained simultaneously.

Data Integrity

Access (read, write, execute) to electronic data shall be restricted to the competent person respective group of persons.

Data Backup

A back-up of the electronic files shall be generated automatically on daily basis. The minimum requirement is to copy all new and/or changed files to a different media daily automatically.

The backup media ideally shall be far from the original media at a different location. Otherwise if that is not possible for some reason, 2 similar backup media shall be used reciprocal weekly. Thus in case of theft, fire or any other unlikely event only data of the last 7 days can be lost.

ACCEPTANCE OF DELIVERABLES

Upon completion of all criteria as defined in the project scope statement and verification that all deliverables meet the defined functional requirements the Project Manager will hand-over the product to the client and is authorized to continue with the formal close out of this project and will then be released from the project.

DEFINITIONS

For the purpose of this plan and any further documents developed through its use the following terms are used:

Acceptance Criteria	A set of conditions that is required to be met before deliverables are accepted.
Activity	A distinct, scheduled portion of work performed during the course of a project.
Assumption	A factor in the planning process that is considered to be true, real, or certain, without proof or demonstration.
Baseline	The approved version of a work product that can be changed only through formal change control procedures and is used as a basis for comparison.
Change Control	A process whereby modifications to documents, deliverables, or baselines associated with the project are identified, documented, approved, or rejected.
Change Control Board	A formally chartered group responsible for reviewing, evaluating, approving, delaying, or rejecting changes to the project and for recording and communicating such decisions.
Change Control System	A set of activities that describes how modifications to the project deliverables and documentation are managed and controlled.
Change Request	A formal proposal to modify any document, deliverable, or baseline.
Constraint	A limiting factor that affects the execution of a work package or process.
Controlled Document	An original numbered copy of a document for which amendments will be automatically advised.
Corrective Action	An intentional activity that realigns the performance of the project work with the project management plan.
Defect Repair	An intentional activity to modify a nonconforming product or product component.
Deliverable	Any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project.
Enterprise Environmental Factors	Conditions, not under the immediate control of the team, that influence, constrain, or direct the project, program, or portfolio.
Inspection	An official examination of an item or situation in order to see if rules are being followed and things are in their proper condition.
Ishikawa Diagram	Ishikawa (or fishbone, or cause-and-effect diagrams) are tools used

	to investigate circumstances that resulted into a certain result.
Lessons Learned	The knowledge gained during a project which shows how project events were addressed or should be addressed in the future for the purpose of improving future performance.
May	means an optional action
Organizational Process Assets	Plans, processes, policies, procedures and knowledge bases specific to and used by the performing organization.
Preventive Action	An intentional activity that ensures the future performance of the project work is aligned with the project management plan.
Procedure	Procedures include activities or sets of activities (processes) as well as details how to perform it, responsibilities, schedules, etc. Procedures are not cross-departmental.
Process	A process is a set of sequenced activities to be carried out to accomplish a task. Processes can be cross-departmental.
Process Flow Chart	Process flow charts are diagrams to monitor the behavior of a process over time. They include a mean, a lower control limit and a higher control limit.
Product Life Cycle	The series of phases that represent the evolution of a product, from concept through delivery, growth, maturity, and to retirement.
Project	A temporary endeavor undertaken to create a unique product, service, or result.
Project Life Cycle	The series of phases that a project passes through from its initiation to its closure.
Project Scope	The work performed to deliver a product, service, or result with the specified features and functions.
Product Quality	The central aspect of a product that is determined by the client and includes attributes such as safety, reliability, serviceability, and usability.
Quality Control (QC)	The primary objective of QC is to anticipate potential risks and issues with regards to the grade of quality. The QC measures are to be adequate to cover all operations both on-site and off-site.
Quality Assurance (QA)	The primary objective of QA includes verification, audits and evaluations of implementation of the quality control system by the contractor, its sub-contractors and suppliers.
Rule of Seven	In process control charts, if there are seven points on one side of the mean, then an assignable cause must be found.
Shall	means a mandatory action
Standard	Standards are written unambiguous measurable achievable baselines precisely defining how something should be.
Workaround	A response to a threat that has occurred, for which a prior response

Project Quality Management Plan

had not been planned or was not effective.

Work Break-down Structure (WBS)

A hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables.

WBS ID

A unique number identifying a work package.

Work Package

The work defined at the lowest level of the work breakdown structure for which cost and duration can be estimated and managed.

ACRONYMS AND ABBREVIATIONS

CAR	Corrective Action Report
COO	Certificate of Origin
CO	Change Order
CR.....	Change Request
Insp.....	Inspection
IR.....	Inspection Register
ITR.....	Inspection and Test Request
NCR	Non-Conformance Report
PQP	Permanent Quality Plan
PQMP.....	Project Quality Management Plan
QA	Quality Assurance
QC	Quality Control
QTY	Quantity
RFI.....	Request For Information
SOR	Site Observation Report
UOM	Unit of Measurement

LIST OF ATTACHMENTS

Template No.	Name