

QUALITY CONTROL MANUAL

TABLE OF CONTENTS

Contents

QUALITY CONTROL MANUAL.....	1
TABLE OF CONTENTS.....	1
1. GENERAL – COMPANY POLICY AND SCOPE OF WORK	2
2. ON SITE QUALITY CONTROL PROGRAM.	2
2.1 QUALITY CONTROL ORGANIZATION.	2
2.2 QUALITY CONTROL PERSONNEL:	2
3. AUTHORITY OF PERSONNEL.	4
4. RELATIONSHIPS WITH OTHER STAFF MEMBERS:	4
5. INSPECTION PROCEDURES, HOLD POINTS & CONSTRUCTION CORRECTION NOTICE:.....	4
6. CO-ORDINATION WITH CLIENT’S REPRESENTATIVE:	5
7. AS BUILT DRAWING.	5
8. PROCUREMENT QUALITY CONTROL.....	5
9. TESTING.	5
10. LIBRARY AND INDEX FACILITY:	6
11. INVENTORY RECORDS.	6
12. FORMATS AND FORMS.....	6
13. LISTING OF ON SITE INSPECTION.	6
14. DOCUMENTATION AND RECORDS.	6
15. HAND OVER PACKAGE.....	7
16. OFF SITE QUALITY CONTROL PROGRAM	7
SCOPE:.....	7
ORGANIZATION AND FUNCTION:	7
17. DOCUMENT CONTROL:	8
SPECIFICATIONS AND BILL OF QUANTITIES.....	8
APPROVED SPECIFICATION, SAMPLE AND DRAWINGS.....	8
PURCHASE ORDERS.....	8
INSPECTION REPORT AND CERTIFICATE OF TEST.....	8
SHIPPING DOCUMENTS.	8
SITE INSPECTION AND CLAIM.	8
18. INSPECTION	8
LIST OF INSPECTIONS AND EXAMINATIONS.....	9
DEFINITIONS OF INSPECTIONS AND EXAMINATIONS.	9
19. HOLD POINT SYSTEM.	11
HOLD POINT.....	11
NON-COMPLIANCE:	11
20. PACKING, TRANSPORTATION, STORAGE & INVENTORY RECORD.	11
PACKING:.....	11
STORAGE.....	12

1. GENERAL – COMPANY POLICY AND SCOPE OF WORK

This Quality Control Program is established to assure that all phases of construction, inspection and testing activities are performed in accordance with the Contract requirements and recognized Construction Procedures, National and International Codes and Standards, that the Contractors work is to a high standard of workmanship.

The Quality Control Program shall be implemented for all work contracted by and executed for Water & Power Projects WPP CO.

The Quality Control Program is divided into two parts: –

- A). On Site Quality Control Program.
- B). Off Site Quality Control Program.

2. ON SITE QUALITY CONTROL PROGRAM.

2.1 QUALITY CONTROL ORGANIZATION.

1. The Quality Control Organization is a separate organization whose sole duty is to ensure conformance to National and International codes and standards, Contract specifications, Drawings and the Municipality regulations with respect to materials, workmanship, construction, finish, functional performance and identification by means of surveillance inspection and testing.
2. Contractor will designate a QC Manager and QC Inspectors to cover aspects of Quality Control.
3. Contractor shall propose the QC Organization chart, which shows responsibilities and lines of coordination for effective quality control as required by this manual.

2.2 QUALITY CONTROL PERSONNEL:

A. THE PROJECT MANAGER:

1. The Project Manager shall report directly to the management of the company.
2. He shall be responsible for assuring compliance of the approved Quality Control Program for all Construction Inspection and testing activities both Off Site and On Site.
3. He shall be responsible for the project construction and supervision of the work and assuring availability of adequate tools, equipment, manpower and qualified site supervisors.
4. He shall be responsible for procurement, receipt and proper storage of all materials.
5. He shall be responsible in maintaining adequate quality. Quality Control Staff to perform all tasks required by the approved Quality Control Program.
- 6.
7. He shall represent the Contractor for all contractual matters with the client.
8. He shall be responsible for maintenance of required documentation to ensure compliance of the approved quality control program.
9. He shall be responsible for issuing the periodical Quality Control Reports to the client ensuring correction of any non-conformance reports.
10. He shall maintain a clean and safe Site.

B. THE QUALITY CONTROL MANAGER:

1. The Quality Control Manager will report directly to the contractor's Project Manager and to the Client's designated representative on all matters relating to QC. He will also inform the Client's representative of all relevant steps in this regard.
2. He will be responsible for the implementation of the approved Quality Control Program and ensuring compliance with the requirements of the Contract Specification and Drawings and National and International Standards.
3. He will be responsible for the preparation of all Quality Control, inspection and testing procedure and method of statement required for the implementation of the approved Quality Control Program.
4. He will assign and direct the Quality Control Inspectors in the performance of Specific responsibilities described throughout the approved Quality Control Program.
5. He should ensure that pre-check is done on all activities prior to requesting for Client's inspection.
6. He shall be responsible for ensuring compliance of the approved
7. Quality Control Program by all his sub-contractors and vendors. Further, he shall keep liaison with the outside-approved Testing Laboratory in the performance of necessary tests and review all the test results.
8. He should be vigilant and keep close observation on all the works materials and equipment's being installed on the project. Any work or material which are in non-conformance with the Contract requirements, National and International Codes and Standards, approved samples etc. he should take prompt action to issue non-conformance reports and ensure that the items are rectified satisfactorily prior to client's inspection.
9. He will verify that all sample, certificate of laboratories and field test comply with the contract requirements.
10. He will oversee the Vendor's Quality Control activities to ensure all materials items and services supplied by the vendors comply with the contract specifications and requirements. He will oversee and supervise all subcontractors' quality control activities.
11. He will be responsible for inspection of all materials and equipment to be installed in the project for conformity with approved samples and contract requirements. He should also verify that necessary and suitable storage and protection requirements are met for all materials and equipment.
12. He will liaise with client on all quality-related matters including submission of reports to client.
13. He will be responsible for assembly of Daily Quality Control Reports and recommend issuance and corrective action regarding non-conformance.
14. He will implement and maintain a filing system for all Quality Control Procedures, Records, Reports, etc.
15. The Quality Control Manager will be college graduate with BS Engineering, with a minimum of 10 years-related construction experience.

C. THE QUALITY CONTROL INSPECTORS:

1. The Quality Control Inspectors will report directly to the Quality Control Manager.
2. The Quality Control Inspectors will perform the inspection and testing activities directed by the Quality Control Program Procedure
3. and the Quality Control Manager and shall record results of inspection and test on the inspection check lists and transmit to the Quality Control Manager for incorporation in Daily Quality Control Report.
4. The Quality Control Inspector will implement the approved Quality Control Program as directed by Quality Control Manager.

5. The Quality Control Inspector should be very vigilant on all the construction works and ensure that required Quality is achieved on the respective works and materials and equipment being installed. Prompt action to be taken on all the non-conformance acts. He shall be fully informed and knowledgeable on the contract requirements for the respective works and materials.
6. He should ensure the Quality of Work and materials and equipment supplied and installed by vendors/sub-contractors are conforming to the contract requirements and approved samples.
7. He should conduct pre-checks on all the items, activities & installed materials prior to requesting for client inspection.
8. All contractor's personnel (i.e. Engineering, Procurement, as well as Quality Control) shall be completely familiar with the requirements of Project specification and the Contractor's Quality Control Program.

3. AUTHORITY OF PERSONNEL.

- Final authority for acceptance and approval of works and rejection of unacceptable works is the sole prerogative of client.
- Authority to reject work by contractor's Q. C dept. is limited as follows: –

QC Manager- Full authority on behalf of Contractor to implement all aspects of the QC plan including authority to stop any work in progress or reject and direct removal of any completed work not fully complying with the contract requirements.

QC Inspectors- authorized to deal with field supervisors to correct identified deficiencies. They shall notify the QC Manager who will in turn notify client before concealment of any deficient work.

4. RELATIONSHIPS WITH OTHER STAFF MEMBERS:

While the Quality Control Organization is a separate Organization with Contractor it may from time to time need the temporary assistance of specialists. The Quality Control Manager is authorized to call upon anyone in the Contractor's Engineering Department to assist in the review of technically complex submittals or the resolution of design problems that come to light during construction.

5. INSPECTION PROCEDURES, HOLD POINTS & CONSTRUCTION CORRECTION NOTICE:

1. Prior to the start of a new phase of construction, the Quality Control Manager shall make a review of the Contract requirements and ensure that all materials and /or equipment have been submitted and approved. He shall make an examination of the work area to ascertain that all preliminary work has been completed. Once the Quality Control Manager has satisfied himself that all the requirements for the particular phase may proceed after client approval. Inspection Procedures will be in relationship to the relevant Method Statements.
2. Hold Points- The Hold Point is the stage at which a particular type of the work has been completed and is about to be covered, enclosed or otherwise concealed by a succeeding work. It is the responsibility of the Contractor's QC to pre-check all the completed works for conformity with the Contract Specification and then request for client Inspection of the hold points.
3. Contractor shall not proceed with succeeding work unless client approval is obtained on the hold points. Twenty-four hours minimum advance notice to be given to client prior to inspection. Requests for inspection in anticipation of completion of work are unacceptable.
4. The request for inspection for client Representative shall be made through inspect Page 5 of 19 section forms at the various Hold Points.
5. Non Compliance – During inspections, should it be found, that either part, or all of the activity does not comply with the Contract requirements the following action will be taken: –

6. Client will not approve the activity.
7. The QC Inspector will inform the relevant field supervisor and the QC Manager of any deficient work.
8. If the problem is not rectified, the QC Manager will issue a non-conformity report to the Project Manager for immediate remedial action.
9. The non-compliance report will immediately be made available to client.
10. The non-compliance report will be used to record the date and nature of remedial action.
11. Remedial action will be endorsed by the QC Manager and approved by client.
12. All non-compliance report will be submitted to client with the monthly report.

TESTING AND WITNESS:

Activities, which need testing and witnessing, need also to be informed in advance to client.

CONSTRUCTION CORRECTION NOTICE (CCN):

Client will issue a letter or CCN on all non-compliance activities, and to be received by the Contractor. Prompt action to be taken by the Contractor to clear the Non-Compliance within 48 hours. No related work should proceed until the deficiency is rectified and approved by client.

6. CO-ORDINATION WITH CLIENT'S REPRESENTATIVE:

The quality Control Manager shall always keep client Representative informed of the Contractor's activities, in writing. Daily information meetings shall be held between the Quality Control Manager and client to discuss ongoing construction activities and Quality Control subjects. A summary of all information discussions shall be documented in weekly Quality Control Reports and submitted to client. The report shall also include test and inspection results and a summary of the Contractor's activities on the previous week.

Client reserves the right to inspect any work at any time and to reject the work if it does not comply with contract requirements.

7. AS BUILT DRAWING.

Working "As-Built" drawings are recorded on a daily basis in designated sets of drawings maintained by the Quality Control Manager "As-Built" information is recorded on field sketches by supervisors and passed daily to the Quality Control Manager for recording. Upon the completion of the work, a set of "As-Built" drawings shall be prepared and submitted to client for review and approval together with recorded field changes copy.

8. PROCUREMENT QUALITY CONTROL

1. The Off-Site Inspection Plan is attached as a separate entry.
2. The Quality Control Manager shall be responsible for reviewing all Purchase Orders issued by Purchasing Department for permanent construction materials verifying that all the necessary quality related requirements are included in the requisition and also to verify selection of "Approved Vendor".
3. The Quality Control Manager shall establish and implement a schedule of "Off Site Inspections" of approved manufacturers to ensure that their products are being manufactured in accordance with required specifications and drawings.
4. The Quality Control Manager shall be responsible for inspecting storage areas and warehouse on the construction site to ensure proper storage of all the materials.

9. TESTING.

1. Upon receiving constituent materials for construction, samples will be taken for testing to determine specification compliance. The samples be taken by QC Department personnel or by the approved independent Testing Laboratory with client witnessing free from

interference from construction personnel, and stored and tested in accordance with the relevant standards, by independent laboratory.

2. The Testing Laboratory staff will be at the sole direction of the QC Manager, and cannot be prevented from carrying out their function, by construction personnel.
3. All test results will be transmitted to client regardless of whether they pass or fail.

10. LIBRARY AND INDEX FACILITY:

The Quality Control Department at Site Office shall keep at all times the following references (Latest Editions) to be used by its Quality Control Inspectors in the implementation of the Contract and specification terms and conditions.

- ACI Manual of Concrete Practice.
- Concrete Masonry Handbook.
- ASTM
- Architectural Graphic Standards.
- ASHRAE- American Society of Heating, Refrigeration & air-conditioning Eng.
- SMACNA – Sheet Metal & air-conditioning Contractors National Association.
- NEC – Vol. 1 & 2 Electrical Code.

The Quality Control Department shall keep a filing system for each building and in which all test and inspection reports shall be kept. Contractor shall handover all such files to client on request.

11. INVENTORY RECORDS.

The Storekeeper shall, on weekly basis, submit a list of all materials received during that week including quantities ordered, received and balance. This list shall be passed to the Material Quality Control Inspector who shall check the materials received and its conformity to approved material specifications.

Materials received showing frequent failure must be directly reported to client. The weekly inventory report should be submitted to Client.

12. FORMATS AND FORMS.

All necessary test / inspection/ reporting or any other forms shall be part of this Quality Control Plan. However, in the event of any format not available in the execution procedure, the contractor can submit its format and obtain approval.

13. LISTING OF ON SITE INSPECTION.

The attached list details items where inspection or testing is required, along with the categorization of the activities i.e. Hold Point Release, Test Activity witnessing and Pour cards, applicable for calling an official inspection from client. The control requirements are as follows:

- **TAW** – Test/Activity Witnessing.
- **HP** – Inspection Request (hold Point Release)
- **PC** – Pour Card.

14. DOCUMENTATION AND RECORDS.

1. Each QC inspector will, each day, submit to the QC Manager a report describing the activities of the day. Daily inspection requests will be submitted to client requesting specific inspections including “Hold Points”.

2. A weekly report will be submitted to the client comprising inspection reports on and off site, test results and material inspections. Reports will include details for rejections, CCN, non-conformity report and rectification done.
3. A monthly report will be submitted to client summarizing activities and progress during previous month.
4. A file containing all relevant data, i.e. test results, inspection reports, client and Royal Commission approvals will be maintained by the Quality Control site office.
5. These documents will be made available to client. Photocopies of relevant documents may be provided to client or his representative on request.

15. HAND OVER PACKAGE.

The Q.C. Department will, at completion of all works and after final Snagging and rectification submit to client the complete Q.C. report on Buildings.

16. OFF SITE QUALITY CONTROL PROGRAM

SCOPE:

Upon the provision of the Contract Documents, Contractor takes the responsibility to furnish all specified review, inspection and tests of all items of works including suppliers and sub-contractors to ensure performance of contract items according to the applicable specifications and drawings with respect to the equipment, workmanship, materials, construction and other connected items.

A plan is formed to control the suppliers and sub-contractors for supply of materials, equipment and services of the highest quality of establishing a thorough inspection and evaluation of materials and works. This plan thus established shall be an Off-Site Quality Control Plan and shall help in implementing the suppliers' inspection plan.

ORGANIZATION AND FUNCTION:

The organization is composed of personnel who are authorized by the Project Manager, to act on various duties as shown.

It is the duty of the organization to ensure conformance to the Contract of all contractual activities and to perform the following tasks:

1. Maintain all documents and data.
2. Conduct selection and evaluation works of Suppliers and Sub-Contractors.
3. Perform all inspection of the materials and equipment during and/or after
4. Production in coordination with the relevant Department.
5. Provide evidence of conformance as required by the Contract specification.
6. Control the system of handling, identification, storage and transportation to prevent damage, deterioration and loss of materials.

The frequency of the inspector's visits to the manufacturer shall depend on the nature of the produced item and the instructions of the Off-Site Quality Control Manager, but it shall not be less than six (6) inspections for any item.

The Off-Site Quality Control Manager and/or the inspection office shall have the authority to stop the production whenever they find that the manufacturer is not complying with the specifications and shall report directly to the Quality Control Manager.

The in-Kingdom inspectors shall use a qualified laboratory to test any part whenever it is needed. All suppliers shall be notified in writing that they have to provide access for inspection of the work by the client staff at all times.

All suppliers shall be required in writing to submit test reports certificates for his products.

17. DOCUMENT CONTROL:

All the related documents of each item shall be controlled and filed in a file with same control number, including following matters.

SPECIFICATIONS AND BILL OF QUANTITIES.

Required Specifications and Bill of Quantities of the item to be transferred from the related Procurement Department shall be distributed to the reliable supply sources for their quotations, samples and technical data including drawings.

APPROVED SPECIFICATION, SAMPLE AND DRAWINGS.

The specification, samples and drawings of selected sources shall be submitted to client for their review and approval.

PURCHASE ORDERS.

A Purchase Order shall be issued to the approved source with the approved specifications, samples and drawings. The specified test and inspection certificates to be carried by the supplier in his shop and/or approved testing agencies will be marked on the Purchase Order.

If there is any revisions or Specification and Quality etc. a revised Purchase Order shall be issued in that event superseding the one issued earlier. Only the Project Manager is authorized to issue a Purchase Order.

INSPECTION REPORT AND CERTIFICATE OF TEST.

Reports of Off-Site Test and Inspection shall be kept on forms of approved format. All the test certificates and inspection reports including those from suppliers and/or other testing agencies shall be certified by the appropriate responsible Engineer, who is recommended by the Manager of the Quality Control Department and approved by the Project Manager.

Such reports and certificates shall be submitted to client as required.

SHIPPING DOCUMENTS.

The copies of shipping documents shall be distributed to the related department and the contents shall be reported to client.

SITE INSPECTION AND CLAIM.

When the materials are delivered to site, material inspector of Quality Control Department shall inspect them and report to the Quality Control Manager directly. A report shall be submitted to client on approved format on receipt of a consignment. If any damage and losses are found, a claim shall be made immediately to the Party concerned and be followed up for prompt solution. This is to be carried out by the Procurement/Administration department.

18. INSPECTION

This procedures establishes the system and outlines the responsibilities for inspection, making identifying, documenting and storing all property received at the construction site.

Receiving operations shall begin prior to unloading or unpacking items and continue until times are either placed in a controlled storage area or in their final location. The Procurement department shall be responsible for all the storage and stocking.

The Quality Control Manager shall be responsible for assuring that all items received comply with applicable specifications, purchase orders, codes and drawing and shall carry out the inspections and examinations.

The Procurement Manager shall be responsible, in case of damage or shortage of such property, to identify and take action within twenty-four (24)

hours and also report in writing such damage to the Project Manager, who in turn shall take such action as he deems necessary for rectification.

LIST OF INSPECTIONS AND EXAMINATIONS.

1. Shipping Damage.
2. Identification/ Marking
3. Protective Covers and Seals.
4. Cleanliness.
5. Manufacturing/Documentation.
6. Lubricants/Oils.
7. Coatings/Preservatives.
8. Physical Damage.
9. Instrumentation.
10. All other pertinent data deemed necessary.

DEFINITIONS OF INSPECTIONS AND EXAMINATIONS.

SHIPPING DAMAGE, FIRE

Visual inspection for charred paper, wood, or plant indicating exposure to fire or high temperature.

ENVIRONMENT

Visual inspection for broken, loose or twisted shipping ties and down straps or chains indicated improper blocking and tie down during shipment.

ROUGH HANDLING

Visual inspection for splintered, torn or crushed containers indicating improper handling.

IDENTIFICATION / MARKING

Verification that identification and markings are in accordance with applicable codes; specifications; purchase orders and drawings.

PROTECTIVE COVER AND SEALS.

Visual inspection to assure that cover and seals meet their intended functions.

CLEANLINESS.

Visual inspection to assure that accessible internal and external areas are free of dirt, soil, mill scale, weld spatter, oil, grease or stains.

MANUFACTURING DOCUMENTATION

Assurance that the materials received fabricated tested and inspected prior to shipment is in accordance with codes, specifications, purchase orders and drawings.

LUBRICANTS OILS

Verification of presence of correct lubricants and oils, if required by either specifications vapor space inhibitor, if required.

COATINGS/ PRESERVATIVES

Verification that coatings and preservatives are applied in accordance with specifications purchase orders or manuals.

PHYSICAL DAMAGE

Visual inspection to assure that accessible internal and external areas are free of detrimental gouges, dents scratches and burns, cracks, and breaks or other physical damage.

INSTRUMENTATION

Verify instrumentation to manufacturer manuals and applicable orders.

TEST CONTROL PLAN:

Quality Inspection includes three phases during production.

Preparatory Inspection:

This inspection shall be performed prior to starting any work on any definable phase of production in Suppliers' shops.

And this shall include a review and reconfirmation of the approved specifications, samples, drawings and delivery.

The supplier before productions shall submit detailed production schedule.

- Check to assure that raw materials and equipment have been stocked and provided.
- Examine to assure that materials meet the approved specifications.
- Check to confirm that provisions have been made to provide required inspection and test.
- Check to assure that production has been started as per the production schedule.

Follow Up Inspection.

During the production period, the responsible Quality Control staff shall inspect each process periodically and report the result in any approved format to client. And if required, the Quality Control and /or relevant staff shall be dispatched to the Suppliers shop.

Check to assure that all the processes are being continued in compliance with the approved specification and requirements including control test until completion of the particular phase of production.

Final Inspection.

After completion of production, final inspection shall be carried out at the shop and a report shall be followed together with:

- MILL TESTING CERTIFICATES.
- LABORATORY TEST REPORT
- OTHERS IF REQUIRED.

PERIODIC REPORT:

Weekly Report

Weekly report shall include all work performed by the Off-Site Quality Control Personnel with all sample numbers assigned in a sequential and consecutive order and details of the sample or test to which each number has been assigned.

Monthly Report.

On a monthly basis, all the test data shall be summarized in tabular and/or graphical form in a manner which best illustrates the trends, specific results and specifications requirements, and is to be submitted to client.

Where test do not meet the requirements, full explanations shall be provided to show that action was taken (i.e. rejection, retest etc.).

Forecast Report.

Three Weekly Forecast Reports shall be prepared which contains forecast to be performed during the three weeks and descriptions of planned inspection and test. Also hold points shall be identified.

The summary of inspection carried out during the work shall be prepared. Number of HP/TAW/PC approved or disapproved by client shall be indicated.

INSPECTION DETAIL.

Generally, the items to be purchased for the Contract shall be categorized and inspected as follows:

Major Engineered Equipment.

The Test Activity Witness and Hold Points shall be imposed on the respective suppliers. And the "Inspection Plan

Summary" is attached herewith.

Long Lead, and/or high volume proprietary items. The sample approval by client is required and Hold Points shall be imposed on the respective suppliers.

Materials and equipment, which are not categorized above. The sample approval by client and/or Certificate of Conformance is required.

19. HOLD POINT SYSTEM.

HOLD POINT.

Hold Point is defined as a critical step in manufacturing and/or testing whereby the contract document requires that the supplier is obliged to advise

Contractor's Inspection Personnel with a reasonable time in advance of the operation so that the Inspector may witness it.

The Supplier shall not proceed with the work beyond the Hold Points without witness by the Contractor's Inspector and client's Engineer, except for extreme conditions presented by written agreement.

Prior to requesting client Inspection, the Q.C. Inspector shall inspect the work and prepare all necessary documents for client Inspection and sign off.

The Contractor shall provide advance notice for Hold Point Inspection. The authorized representative or his designee may spot check from time as deemed necessary by client.

NON-COMPLIANCE:

In the event of Non-Compliance with specified requirements, the Q.C. Manager shall issue a Certificate of Non-Compliance to Manufacturer/Dealer for immediate remedial action.

The Certificate of Non-Compliance shall be made immediately available to Client and shall further be used to record the date and nature of successful remedial action, which shall again be endorsed by the Quality Control Manager.

All Certificates of Non-Compliance section on procedure line correction notice shall be included in the Monthly Reports, being submitted to Client.

20. PACKING, TRANSPORTATION, STORAGE & INVENTORY RECORD.

To prevent damage, deterioration and loss of materials, the Contractor shall have a system for the control of handling, identification, storage and shipment as follows: –

PACKING:

The packing method shall be decided according to the character of materials, by container or bulk. Individually packed materials on ship shall be moved to the packing yard and packed as per International Standard. This work also shall be inspected and reported by the Inspector.

The shipment and in-land transportation shall be contracted to a reliable forwarding agency.

STORAGE.

1. The purpose of this procedure is to establish an adequate method for controlling the storage of material and equipment at the construction site in order to minimize the possibility of damage to equipment, or diminishing quality due to corrosion, contamination, deterioration or physical damage.
2. The material /equipment is considered to be in storage from the time any item is stored upon receipt and includes the time and item is removed from storage until placed in its final location, and through all required pre-operational testing.
3. The Storekeeper shall be responsible for the storage of all materials/equipment. The Quality Control Inspector shall be responsible for assuring that the quality of material/equipment is maintained from the time of receipt through all the pre-operational testing so that no degradation or deterioration of material/equipment is observed.
4. Quality Control Personnel shall perform daily surveillance inspection to assure that Contractor and sub-contractors maintain material/equipment in accordance with requirements of the technical provisions of the Contract Specifications.
5. Items, which do not comply with specifications, approved manufacturer recommendation or this procedure, shall be brought to the attention of the Project Manager by written report or notice.
6. Storage areas shall be under surveillance of the Quality
7. Control Inspector to assure that storage areas are being maintained in accordance with the requirements of the Contract Specifications, approved manufacturer's instruction and Quality Control Plan. He shall check the following: -
 - a. ACCESS TO STORAGE AREAS.
 - b. CLEANLINESS AND HOUSEKEEPING PRACTICES.
 - c. FIRE PROTECTION
 - d. MEASURES TO PREVENT ENTRANCE OF ANIMALS AND VERMIN
8. Storage methods shall be in accordance with the Contract Specifications, approved manufacturer's instructions and Quality Control Plan.
 - a. READY ACCESS TO STORED ITEMS.
 - b. ARRANGEMENT OF ITEMS.
 - c. IDENTIFICATION.
 - d. COVERINGS.

INVENTORY RECORD:

A detailed up to-date record shall be kept in an approved form of materials and equipment's on order, delivered, found faulty, lost during the works or to be surplus to requirements. Monthly summary inventory records shall be submitted to Client.