PRE-QUALIFICATION QA/QC POLICY







ISO 9001:2008 REGISTERED FIRM CERTIFICATE NO: ME/10/1197

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1.0 Introduction

This document states the Quality Policy for BIMCO engaged in providing goods and services to Contractors on Projects and related work activity. This document is prepared to systemize all activities associated with planning, design, construction, quality control and quality assurance and to ensure and demonstrate that workmanship, material, equipment, and services provided under the control of contract conform to the quality requirements specified in the Contract Documents.

1.1 Scope

Content of this document are applicable to all the works being carried out, like engineering, procurement, construction, calibration, testing for the following activities

AIR CONDITIONING

- HVAC Duct Installation
- Chilled Water Pipe Installation
- Valve Package For AHU's, Chillers, FCUs & Pumps
- Installation of Exhaust Fans
- Installation of Chillers, AHUs, FCUs
- Installation of Package Units
- Installation of All Split Units
- Installation of CHW pumps/Pressurization Units
- Installation of VCD/FD/NRD/Split Dampers
- Duct Insulation
- CHW Pipe Insulation
- Aluminum Cladding Works (Pipe & Duct)
- CHW Pipe Pressure Testing
- Sound Attenuation

- Air Terminals Installation
- Testing & Commissioning
- Air Balancing
- Building Management System
- MEP Co-ordination
- MEP Builders Work
- Inspections
- As Built Drawings
- O & M Manual

ELECTRICAL

- Installation of H.V Transformer
- Installation of MV/LV Cables
- Installation of MV Panels
- Lighting Dimmer Control System
- Central Battery Emergency System
- Fire Alarm System
- Public Address System
- Emergency Lighting System
- Lightning System
- Bus Bar Riser System
- Telephone / Data Outlet System
- MATV System
- BMS System
- Cable Tray / Trunking Installation
- Generator Installation
- MDB/SMDB/MICC Installation
- Cable Termination
- Light Fixture Installation

- Approval Process From Government
- As Built Drawings
- O & M Manual

PLUMBING, DRAINAGE, & FIRE FIGHTING

- Installation of underground piping
- Installation of above ground piping
- Installation of Pumps
- Installation of Water Heaters
- Installation of Sanitary Wares
- Installation of Water Filters
- Installation of Fire Hose Reels
- Installation of Fire Extinguisher
- Installation of Sprinklers
- Pressure Testing For Water Supply Pipes
- Pressure Testing For Fire Fighting Pipes
- Gravity Testing for Drainage Pipes
- Piping Sterilization
- Sketches & Checklist
- Testing & Commissioning
- As Built Drawings
- O & M Manual

MEP & AIR CONDITIONING MAINTENANCE

BIMCO, a leading Electro-Mechanical contractor has been established in 2004. The Company specializes in Contracting Department Supply & Installation of Electromechanical systems and projects including Plumbing, Drainage, Electrical , Fire Fighting System, Air Conditioning preventive

maintenance and fast breakdown services of residential, commercial and industrial Electro-mechanical air conditioning, etc. equipment.

Also our Services Department are providing the following engineering services such as Indoor Air Quality measurements and studies, Air Condition duct cleaning, Facility Management and Maintenance for Electromechanical Systems.

Our current clients include commercial property managers, facility managers, buildings owners, banks, and hospitals, as well as countless other air conditioning users.

BIMCO is a KAHRAMAA approved Grade "A" installer and service agent for MEP works. And as a direct result of our high standards, we are a KAHRAMAA approved Contractors. Because of our experience, and our ability to supply a wide range of solutions, we can assess the exact system which is appropriate for your heating and cooling, plumbing, and electrical needs.

The Mission:

Provide clients with exemplary service.

Be cost effective, committed and fiercely competitive.

Make safety a priority.

Be available anytime, anywhere.

Be profitable and efficient, providing for shareholders alike.

Since commencement the company is growing rapidly. In-hand projects had been increased in both number, activities and size of work entitled to our scope. This is because since commencement we adhere to updated technologies requirements, applying codes, standards in a state of

art work style. This is all results in achieving our goals which are customer satisfaction and successful work finalization in all our executed projects all now running in a very satisfactory condition.

We are highly optimistic about expanding and upgrading in all ProService activities areas to meet the increased market need locally and abroad.

We are looking for a long term business venture in Qatar that increases gradually by time utilizing the huge available opportunities which is expected to last at least for the next ten years.

1.2 Reference Documents

- ISO 9001:2000 Standard Requirements
- Qatar Construction Specifications 2007
- Qatar Statutory Regulations
- Recognized International Standards & Codes Practice
- Contract Documents, Specifications & Drawings

2.0 Management Responsibilities

2.1 Quality Policy

QUALITY POLICY

BIMCO is determined to Set the Highest Standards and Benchmarks in Electromechanical, Civil and Fabrication Projects and constantly strive to achieve excellence in their execution, through constant innovation and improvement and above all, to always keep foremost in mind our responsibility to the environment and the well being of our future generations.

Managing Director	Date

2.2 Organizational Description

Projects are executed through the combined effort of Contractor and BIMCO Project Management Teams. As each BIMCO is responsible for the Quality of the products and services provided under its Contractual Terms, a description of how these Quality requirements will be achieved for each Project Stage: i.e. TENDER, FEED, EPIC, shall be clearly specified in the BIMCO's submission as specified here. Post Tender stage and subsequent contract award will require a detailed schedule of precise requirements which are also laid out in this document. To aid clarity an organizational chart showing a typical BIMCO organization and the various interfaces of the Quality groups is displayed in Fig 01.

This is followed by a description of the Quality requirement relative to a typical Project Activity sequence.

PROJECT MANAGER

- Head of BIMCO Project Team
- Representative for the Contract Project and the first person to interact with Client and Third Party Representatives
- Full Authority and responsibility for any aspects of the contract and related agreements.
- Overall execution and administration of the project as per the Contract requirements, specification and Project Quality Plan.
- Ensure a comprehensive Contract Review.
- Deligate responsibilities to his subordinate and direct organization on site.
- Approve all QA/QC Procedures/Plans/Work Instructions for implementation on site.
- Coordinate with the BIMCO management for obtaining the necessary resources for the Project and deploy as required.
- Ensure the Quality Management System is effectively implemented in the project.
- Submit Progress report as per contractual requirements.
- Perform initial post-award and periodical contract review as and when required throughout the execution of the project.

Report to the General Manager & BIMCO Management all progress and other matters regarding project.

CONSTRUCTION MANAGER

- Mainly deals with the technical aspects of the projects, coordination and execution of all construction activities.
- Responsible for the supervision of the site engineers.
- Interface with the Subcontractor.

- Liaise with the Project Manager for effective coordination and execution of the site activities.
- Assist the Project Manager in coordination and execution of all construction activities and engineering aspects of construction and resources.
- Ensures that all activities are carried out in accordance with the program, methods, and implemented as the requirements of the Project Quality Plan.
- Check the capabilities and experiences of all personnel including subcontractors.
- Coordinate with subordinate staff and execute the work as per planned schedules in conformance with applicable specification and Project Quality Plan.
- Continuously assess the actual progress of work against planned program and inform the Project Manager.
- Coordinate approval of source materials, where required.
- Assess manpower, equipment and other resources required to achieve milestone/target dates.
- Coordination of all activities at the site and ensure work is carried out in accordance with contract documents, client specifications, and contractor PQP and procedures.
- Ensure optimum utilization of available resources.
- Liaise with the material engineer for conclusion of tests as per QA/QC Procedures / Plans, as identified in PQP.
- Liaise with the subcontractors for effective handling of the work.
- Liaise with the site engineers for the execution of work.

Report to the Project Manager the accomplishment to the project including problems encountered during constructions.

HSE Officer

- Develop and implement a comprehensive HSE system at the site, in line with the specification & procedure, and local regulations.
- Continuous review of site procedures to ensure safe working conditions on site.
- Carryout surveillance of works including the welfare of the workers & equipments to an agreed programme.
- Carry out incident investigations and generate reports with remedial action to prevent a reoccurrence.
- Coordinate with the Construction Manager and the Site Engineer for the safety of the areas responsibility.

Report to Project Manager

Safety Officer

- Ensure that the safety work in their respective area is carried out in accordance with the specified safety procedures as required.
- Conduct toolbox meeting at least every weekend, subject will be familiarization of safety aspect on site.
- Prepare weekly reports on project status and record any accident that occurred on the site.
- Responsible for the checking of all works at site including the welfare of the workers & equipments.
- Regular inspection of all works areas responsibility.

Report to HSE Officer

SENIOR QA/QC ENGINEER

 Responsible for the execution of the Quality Management System requirements.

- A direct line with Client and authorized to act in behalf of BIMCO on QA/QC Matters.
- Issue Non-Conformance Reports (NCRs) when warranted to ensure proper review of the same.
- Coordinate with the Construction Managers for the proper implementation of the Quality System requirements in the project and the conduct of the Internal Quality Audits.
- Ensure quality audit findings and relevant copies of Quality System,
 QA/QC procedures, QI plans, Work Instructions, and Codes and
 Standards are made available at pertinent locations in the site.
- Ensure appropriate corrective and preventive actions are taken on product and system non-conformances identified during execution of the project.
- Identify quality related training needs and arrange for the training.
- Responsible for all QA/QC related matters.
- Focal point for all inspection, measuring & test equipment used in the project and responsible for the proper implementation of the Contractor's Quality System Procedure for control of inspection, measuring, & test equipments.
- Manages the testing laboratory and the technicians.

Report to the Project Manager

QA/QC Engineers & QA/QC Inspectors

- Responsible for QA/QC related matters.
- Responsible for the preparation of Inspection and Test Plan and Procedures and in coordination with Construction Manager and Method Statements.
- Responsible for ensuring that all components installed in accordance with contract specifications and approved submittals.

- Responsible for the execution of the Quality Management System requirements.
- Ensure all inspection and / or test requirements at all stages of process are carried out as per Quality Plan and Contract requirements.
- Coordinate with the Construction Managers for the proper implementation of the Quality System requirements in the project and the conduct of the Internal Quality Audits.
- Ensure quality audit findings and relevant and relevant copies of Quality System, QA/QC Procedures, QI Plans, Work Instructions and Codes and Standards are made available at pertinent locations in the site.
- Ensure appropriate corrective and preventive actions are taken on the product and system non-conformances identified during execution of the project.
- Monitor the performance of the Sub-contractor for compliance with quality requirements.

Report to the SR. QA/QC Engineer

SITE ENGINEER

- Understand fully the specifications and drawings related to the works.
- Achieve targets as shown in project schedule by setting out priorities, obtaining necessary approvals from client to commencement of works.
- Obtain necessary permits from the client for day-to-day activities and technical issues.
- Encourage, promote and maintain safe working conditions.
- Ensure compliance to QA/QC Procedures, plans and work conditions.

- Liaise with QA/QC Engineers for the preparation and maintenance
 RFIs and of applicable quality records.
- Manage subcontractor activities and ensure timely completion as per project schedule.
- Coordinate with QA/QC Engineer to carry out relevant inspections and tests.
- Liaise with QA/QC Engineer to attend to non-conformities and ensure that corrective action is taken as appropriate.

Report to respective Construction Manager.

MATERIAL ENGINEER

- Arrange the required Material Submittals for the Client's approval and in coordination with Manager for Material Submittals.
- Liaise with the Site Management and the Manufacturers/Suppliers to assure that the material proposed is complying with the Project Requirements.
- Coordinate with the activities related to material sampling, laboratory testing and submit the relevant test reports.
- Monitors and ensures implementation Quality Control Procedures.
- Responsible for all the lab tests and field tests conducted during the course of execution.
- Monitors all production services and materials and raises nonconformance report when applicable.
- Responsible for the preparation, maintenance and retention of Lab/Field Test Results.
- Inform the Sr. QA/QC Engineer any non-conformance observed in the material in use during execution.

- Focal point for all the Inspection, Measuring, Test Equipment used in the project and responsible for the proper implementation of Quality System.
- Reports to the Project Manager regarding the status of all materials and assisted in his duties by Sr. Lab Technician.
- Coordinates with Procurement officer for any defect on incoming materials.

Report to the Sr. QA/QC Engineer

PROCUREMENT OFFICER

- Coordinate with Project Manager regarding the materials requirement including schedule of delivery.
- Responsible for the procurement of materials intended for the Project including the duration of delivery.
- Responsible for the quality and compliance with the requirements of all materials, tools and items supplied for the project and ensure the procured material are acceptable by the Client as per specification & ensures Test Certificates are available as required.
- Continuously assisting the actual delivery of the materials as required bases on Project Material Flow.
- Monitor the inflow of materials & coordinate with QA/QC Engineer for only defects.
- Report to Project Manager the details of materials status and schedule of the delivery.
- Arrange for insurance adjusted for claims in case materials were damaged during transit.
- Monitor supplier selection, bid evaluation and performance.

Report to Project Manager.

FOREMAN

- Lead the workforce to execute work as per Project Requirements.
- Inform Site Engineer on completion of all operations for checking and Client's approval.
- Distribute workforce according to the program agreed with Site Engineer in advance.
- Check output and quality planned work activities on a day-to-day basis.
- Coordinate with Construction Manager for preparation of a weekly requirement program.
- Ensure safe working conditions. Inspect site daily to ensure quality and safety requirements are met.

Reports to the respective Construction Manager/Site Engineer.

DRAFTSMAN

- Preparation of Shop Drawings and making necessary revisions as required.
- Control of Distribution of Drawings.
- Maintain the drawing register and ensuring the current revisions are available.

Reports to the Construction Manager.

2.3 Contractors Quality System: Tender Stage

2.3.1 Quality Related Documents Required

BIMCO shall submit, with their Tender Documents, a general or corporate Quality Programme based on its proposed application to the Tendered scope of work in conjunction with Tender Conditions. These data include:

- 1. An organigram of the proposed CONTRACTOR'S Project Management Team showing authoritative and functional reporting of personnel responsible for Quality Activities,
- 2. CV's of the proposed staff that will be used on the Project,
- 3. A list of proposed SUB-CONTRACTORS and their intended activity,
- 4. A typical Project Quality Plan as used on similar projects,
- 5. Confirmation of Certification or working in compliance with an International Quality Standard. e.g. an appropriate model of the ISO 9000 series: (9001 Design, 9002 Manufacture etc.)
- 6. If Certified or in compliance with another scheme
- 7. A list of applicable specialist procedures which will be used to control the tendered Work which are appropriate to the CONTRACTORS business process.

2.4 Resources

- **2.4.1 Purpose & Scope:** This is to ensure identification of and subsequent availability of adequate resources in terms of trained personnel, equipments, and systems and procedures to carry out activities like inspection, test and monitor of the processes and the system audit.
- **2.4.2 Responsibility:** The prime responsibility lies with the Project Manager who shall be supported by the Construction Managers. The Project Manager shall prepare separate planning schedules and monitors the requirement and deployment of resources. General Manager, in the management review meeting, shall ratify the resources review done by the Project Manager.
- **2.4.3 Method:** Immediately after procurement of work order from the Contractor, Project Manager shall prepare a Project Budget, which gives both Work Plan and Resource Plan. This gives details of requirement of all types of resources in different stages of the Project, i.e. from Mobilization to execution to completion and final handover of the project to Client.

All concerned departmental/sectional heads of the project shall inform through proper channel, their inadequacy of resources and personnel to the Project Manager for his information and necessary action in the Site Weekly Meeting or as and when required. Project Manager after review shall place the same to BIMCO Management for review and necessary action.

2.5 Management Representative

The General Manager has been appointed as the Management Representative with respect to the Quality Assurance Systems and shall be responsible for implementation, operation, maintenance and effectiveness of this Quality Assurance System.

The Management Representative, irrespective of other responsibilities, shall have defined authority for:

- a. Ensuring that this Quality System is established implemented and maintained in accordance with the requirements of ISO 9001 International Standards.
- b. Reporting on the performance of the Quality System to the Management for review and a basis for improvement of the Quality System.

2.6 Management Review

The Management Review is aimed at ensuring the Continuing suitability, compliance and effectiveness of the existing documented Quality Assurance Systems on the basis of the Internal Quality Audit Findings, Client Feedback, quality of the work, resource availability etc. as felt necessary by the Management is satisfying the requirements of Quality Policy and its

objectives. The responsibility of this element shall lie with BIMCO management and all Management Review meetings shall be validated through appropriate and adequate documents.

3.0 PROJECT QUALITY MANAGEMENT SYSTEM

The Quality Management System for this Project shall be used on the requirements of the contract specifications, relevant quality procedures and the ISO 9001:2000 Standard requirements. The main purpose of Quality Management System is to ensure the following activities:

- To develop & implement a comprehensive Quality Management System for the Quality Control & Assurance at Site, in line with Specifications & Procedures.
- To verify Quality Assurance Procedures and recommend amendments, if any to the Quality Plan.
- To develop Inspection Reports, Test Reports of laid materials & equipment & installations, final testing & commissioning reports and confirm technical acceptability in a timely manner.
- To undertake Quality Control Inspections in line with approved Method Statements, ITPs & Quality Plans.
- To define the structure of the Quality System Documentation and to identify the quality planning.

3.1 Quality Planning

All the quality activities for execution of works associated with Client has been identified and presented in the form of Quality Plan.

The project specific procedures and inspection and test plans are prepared on the basis of International Standards, Codes and Engineering practices.

Audit Schedules will be prepared in the form of Matrix indicating Project activities and Quality Management Systems to be audited. Every effort will

be made to meet the planned audit schedule i.e. internal audits as well as external audits. Client will be notified about the audits minimum two weeks in advance.

3.2 STRUCTURE of DOCUMENTED PROJECT MANAGEMENT SYSTEM

3.2.1 Contract Documents

- Client Approved Construction Drawings
- Contract Documents (Specifications, etc.)

3.2.2 Contractor's Documents

- Project Quality Plan
- Project Forms
- Work Programme
- Operational Instructions
- Minutes of the Meeting

3.2.3 STANDARDS/REGULATIONS

- Qatar Statuary Regulations
- Recognized International Standards & Codes of Practice

3.2.4 STRUCTURE OF QUALITY DOCUMENTATION

The Quality Documentation comprises of the:

- Project Quality Plan
- Organization Chart & Job Descriptions
- Method Statements
- Inspection and Test Plan
- Quality Documents Form

Awareness of the users: All users are required to be familiar with the content of Project Quality Plan Documents related to their work.

Project Quality Planning: Planning for Quality at every stage of work is as outlined in the PQP, such as Data & Document Control, Testing, etc.

4.0 Quality Assurance Procedure

Quality Assurance Procedures are established which forms part of the Project Quality Assurance Procedures and will be implemented to ensure that all the requirements as described in Section 1.2 are fulfilled.

4.1 Project Control & Administration

This project will be administered by the Project Manager and will conduct the following procedures as below:

4.1.1 Contract Review

Contract review will be done by the Project Manager at monthly intervals. The review will comprise the following:

- Design
- Method Statements, Material Submittals and Work Instructions
- Construction Time Actual vs. Planned
- Resource Levelling
- Cost Review
- Quality Review

All reviews will be done with a view to meet contract requirements. Review proceedings will be documented, informed to Management by copies of proceedings.

4.1.2 Project Planning and Scheduling

BIMCO has established a procedure to control Project Planning & Scheduling. The purpose of this procedure is to ensure to develop planning package & programme proposals in line with Contract requirements; coordinate, compile, review and follow-up with Subcontractor progress, to plan, modify, monitor and control all resources and equipments at site to complete the Project within the given period of completion.

A Method Statement has been prepared for "Project Control & Progress Management" to ensure the following objectives are met:

- The identification of all significant milestones
- The identification and analysis of Contractor and subcontractors basic activities are controlled
- That progress monitoring is achieved
- Ensures continuous monitoring of forecast and actual data
- The prompt identification of any delay and define corrective actions to recover slippage
- To explain the methodology required to implement and to ensure that planning Package can be integrated in project control system

4.1.3 Site Interface and Project Coordination

BIMCO will coordinate with all local authorities and other regulatory authorities like KAHRAMAA, ASHGAL, QTEL, SCENR, etc. including coordination & interface with other contractors as required, throughout the Contract period to facilitate advancement of works in full compliance to Contract requirements, schedule and Government regulations. All work permits will be submitted in advance and ensure that the planned activities will be started as per schedule and sort Client's help if required for getting work permits approvals.

4.2 Design Control

BIMCO will coordinate with approved design of multiple disciplines, compile and review all design submittals before submitting to the client's approval and ensure that they are in compliance with contract requirements/specifications, compliance of comments and finally its approval in line with contract requirements & schedule. A drawing register will be prepared and submitted to the client's approval and a log will be maintained weekly to monitor the status and appropriate actions will be initiated accordingly for any delays.

4.3 Documents and Data Control

BIMCO has established a procedure to Control Project Documentation.

The purpose of this document is to define the Document & Data Control System of the Quality Management System in order:

- The control of documents in terms of approval, issue, change and distribution.
- To ensure that approved, valid and up to date copies of all documents are available at all times.
- To ensure that all non-valid and obsolete documents are withdrawn from circulation and either destroyed or separately filed.
- To ensure that documents are securely filed, and easily retrievable.
- Those relevant personnel have the latest relevant copies of necessary documents.

The following procedures will be effectively utilized to check the adequacy of any documents produced by BIMCO or their subcontractor prior to issue.

Preparation of Documents & Reports:

Contract documentation may originate from various sources. For this reason it is of utmost importance that document preparation is coordinated by one single office, which will be the responsibility of BIMCO Project site office.

Submittals as required for the Project, such as Programme of Works; Drawings; Plans; Method Statements, Site Reports, Maintenance Manuals; Final Dossier, As Built Record drawings will be prepared by BIMCO Project Site Office or their subcontractor/suppliers and submitted to the Clients for approvals in line with the procedures mentioned Part 7 of Section 1 of QCS 2007. After checking and verification by the concerned technical personnel, BIMCO shall submit to the client for review and comments all documents as required for approvals in sufficient time to allow the client to review and comment upon them without delaying the performance of the work.

Document & Data Changes: The changes shall be identified in the document or through appropriate attachment, where practicable.

Numbering of Documents / Reports: A unique and consistent document numbering system will be adopted for all documentation relevant to the project. The criteria adopted will be alphanumeric digits and letters (abbreviations) to distinguish project reference, type of document, source, etc.

Control Logs: Document control will be the responsibility of the site office. All concerned parties will refer to the site office document numbering, logging, distribution and issue.

Every Contract document issued by BIMCO will be logged in a Document Register. The Register will contain the following information about document:

Logging Number (Sequential Number)

- Document Number
- Document Title
- Revision Number
- Issue Date

Control of Correspondence: All incoming mail/faxes will be stamped by a secretary who will maintain a register for the incoming documents with details such as the document number, type of document, sender name, received date and the file in which the document is filed. The documents then will be forwarded to the PM, who at his discretion will issue copies to the appropriate project site staff. All out-going documents will be entered in the register maintained for the outgoing documents in a similar method.

4.4 Procurement / Subcontracting

4.4.1 Purchasing Control

BIMCO has established a procedure for Purchase Control Process. The purpose of these procedures is to ensure that the purchased products and services comply with the Contract Requirements include agreed delivery time.

Material and equipment to be included in the permanent works will be submitted to and approved by the Client prior to installation.

BIMCO will prepare and submit to Client "Material Inspection Report" to demonstrate compliance with the basic requirements of the contract or to identify any deviation from specification. The procedures will be further updated as required as per Project requirements.

4.4.2 Sub-Contracting & Subcontractor's Quality Plans

The Quality Procedures/Plans/Method Statements as applicable of the subcontractors, employed for the subcontractor's activities, shall be

reviewed / approved by the Project Manager/Sr. QA/QC Engineer and also by the Client, where required, prior to use at site. All subcontractors will be required to work in accordance with the approved HSE Plan.

Where applicable, the Contractor's procedures shall be followed by the Subcontractor. The activities, which shall be subcontracted to client approved subcontractors.

The subcontractors quality related activities shall be monitored by the Contractor through regular progress meeting, eternal quality audits, verification of process at various stages by QA/QC Engineer and through review of quality records submitted by the Subcontractors. The external quality audits shall verify compliance with the subcontractors Quality Plan/ Procedures and Quality System.

The Audit findings and non-conformance identified shall be communicated to the subcontractor for appropriate corrective and preventive action.

4.4.3 Control Measures of Suppliers / Subcontractors

4.4.3.1 Monitoring of Suppliers / Subcontractor Performance:

The Project Manager or the personnel duly delegated by him will monitor the performance of the suppliers/subcontractors. All remarks, comments and non-conformance of the suppliers/subcontractors will be kept on record.

Based on the above, the PM or designated personnel could warn the supplier / subcontractor whose performance falls below the required standard, requesting him to implement suitable corrective measures. Should subsequent review of such supplier/subcontractor performance prove that no improvement was noted, such supplier and subcontractor will be removed from the approved list of suppliers/subcontractors.

4.4.3.2 Verification Arrangements

If contractor enquires verifying purchased product at the supplier/subcontractor's premises, the verification arrangement and method for product release will be specified in the purchasing documents. As per Contractual requirements, Client will be allowed the right to verify the purchased product at the supplier's / subcontractor's premises. Arrangements for such verification and method of product release will be specified in the purchasing documents.

4.5 Process Control

4.5.1 Control imposed on the production aspects during the Project Execution Stage and the Project Manager, Construction Manager, and Site Engineer are responsible for application these process controls to ensure that the production process is carried out under controlled conditions as outlined in the Inspection and Testing Plan for different work activities.

Controlled conditions exist when production process and the end product are subjected to quality assurance check and controls to achieve the desired performance standards in accordance with the Contract Requirements.

Execution Work Programme: BIMCO will prepare an Execution Work Programme outlining the methodology of construction, in accordance with the project Specifications. This programme, once approved by client will be basis of construction management. The detailed programme will be used to monitor the process of the Contract Works. The Execution Programme will be continuously monitored and updated to enable actual projected progress to be compared. Updates of the programme will be submitted to Client as per the Contract Requirements.

- **4.5.2 Quality Control**: The project execution is carried out as per approved designs, drawings, project specifications and the accepted international standards and local codes. For ensuring the quality of works, suitable inspections and tests will be carried out and the test results be forwarded to client. These tests will be in accordance with the conditions of contract and as detailed in the Inspection and test plan. Tests will be performed by the approved 3rd Party Independent Laboratory as well as the BIMCO Site set up Laboratory after getting approval from the client the Quality Plans/ITPs.
- **4.5.3 Workmanship:** BIMCO shall comply with industry standards and shall perform work by those persons qualified to produce workmanship of the required quality. BIMCO and its subcontractors shall comply with Manufacturer's published installation instructions and seek for the Client's clarification in case the instructions conflict with the Project Documentation before proceeding with the work.
- **4.5.4 Work Reports:** The day to day activities undertaken on the site will be recorded on the daily site report. These reports will contain data such as the weather conditions, available manpower, materials and equipment on site, details of meetings and visitors on site, activities undertaken at the site, etc.
- **4.5.5 Variation:** Processing of variations will be as per the specific article of the general conditions of contract. However, no variation works will be executed on the project without client's express written approval.

4.6 Inspection & Testing

BIMCO will provide necessary equipment, instruments, qualified personnel and facilities necessary to inspect the work and perform the tests required by the Contract Specifications. BIMCO will repeat tests and inspections after correcting non-conforming work until all work complies with the

requirements. All re-testing and re-inspections shall be performed at no additional cost to the client.

The client may elect to perform additional inspections and tests at the place of the manufacturer to verify compliance with applicable specifications. Inspections and tests performed by the client shall not relieve BIMCO of his responsibility to meet the specifications.

Inspections and tests shall be conducted in accordance with the established testing procedures and ITPs that have been reviewed and approved by the Client and records maintained accordingly.

Approved procedures and instructions shall be readily available and used by Inspection and test personnel at the time of inspections or test. All revisions to these procedures and instructions shall be approved prior to being used to inspect or test the work. No deviations from the approved procedures and instructions shall be allowed without written authorization from the client/his representative.

Inspection and testing work shall be performed by personnel designated by the Contractor i.e. QA/QC Department These personnel shall be different than those performing the work. Tests will be carried out either by a third party independent laboratory or by the Site Laboratory.

BIMCO shall furnish the client with a signed and stamped inspection report for each item of work to be inspected. BIMCO will clearly document and identify the inspections and test status of all materials and equipment throughout construction.

4.6.2 Inspection & Testing Control: The quality section on site i.e. QA/QC Engineer; QA/QC Inspectors and Sr. LT will be responsible for the preparation, issue and revision as required of all inspection and test instructions and quality test plans.

4.6.3 Inspection and Test Status: The inspection and test status of materials, equipment and construction work shall be identified by proper documentation, register/logs which indicates the conformance or nonconformance of materials, equipment and construction work with regard to inspection and tests performed. The identification of inspection and test status shall be maintained as defined in the documented procedures, throughout the course of construction to ensure that only materials, equipment and construction work that have passed the required inspections and tests are used or installed. Identification by means of stamps, tags, or other control devices attached to, or accompanying, the material or equipment.

4.6.4 Control of Inspection, Measuring & Test Equipment

BIMCO has established a controlled system for calibration of Inspection, Measuring and Test equipment used to ensure correct performance of calibration.

The QA/QC Engineer is the focal point for all the item used in the project and the control of Inspection, Measuring & Test Equipment shall be as per the Contractor's Quality System Procedure for Control of Inspection, Measuring & Test Equipment.

All 3rd Party calibrations will be certified and the copies of the same will be furnished to Client for their records.

4.7 Handling, Storage, Preservation & Delivery

BIMCO has established a procedure to control for handling, storage of materials and equipment to prevent damage, deterioration, and distortion of shape or dimension, loss, degration.

4.8 Control of Non-Conformances

BIMCO has established a procedure to control non-conforming products.

The purpose of this procedure is to ensure:

- Product, which does not conform to product requirements, is defined and controlled to prevent its unintended use or delivery.
- The controls and related responsibilities and authorities for dealing with non-conforming product are identified.

This procedure applies for all products, process & system nonconformities and Client's complaints.

The action may take the form of repair, rework, re-grade, scrap, concession, etc.

4.9 Corrective Action / Preventive Action

BIMCO has established a procedure for Corrective Action / Preventive Action.

The purpose of this procedure is to ensure the implementation of:

- Action/s to eliminate the cause/s of an existing nonconforming, defect or other undesirable situation to prevent recurrence.
- Action/s to eliminate the cause/s of potential nonconforming, defect or other undesirable situation to prevent occurrence.

4.10 Internal Quality Audit

BIMCO has established a procedure for Internal Quality Audit.

The purpose of this procedure is to monitor the compliance of work practices with documented practices to determine whether the Quality Management System:

- Conforms to the planned arrangements, to the requirements of ISO 9001:2000
- Conforms to the requirements of the Quality Management System
- Conforms to the project requirements
- Is effectively implemented and maintained

Tentative audit schedule dates on which the audit will be performed during project execution.

4.11 Control of Quality and Project Records

All Quality Records shall be complied, stored and retained in which in such a way that they are readily retrievable, prevented from damage, deterioration and loss.

BIMCO has established a procedure to control Quality and Project records.

The purpose of this procedure is to ensure that pertinent Quality and Project Records such as Survey Reports, Material Certificate/ Receipts, Inspection and Closed-out Non conformance and corrective action reports are identified, collected, and maintained to demonstrate the effective implementation of Quality System in conformity with the specified requirements.

Quality records that may be generated during execution of the project are as identified in the list in Annexure. The deviations for non-application of any of the identified format (s) shall be effected through Concession Request (s). Similarly, addition to the list shall be identified through an amendment to Project Quality Plan.

4.12 Method Statements

Method Statements give information about relevant to the execution and performance of particular work. These are prepared in accordance with the contract requirements.

4.13 Inspection and Test Plan

Inspection and Test Plan for the project will attached along with the Method Statements.

4.14 Weekly & Monthly Report

During the construction phase of work, the BIMCO shall furnish weekly & monthly reports in line with client requirements. Monthly report includes of all QA/QC activities including details of non-conformance reports and any testing and inspection works carried out.

4.15 Management Review

Management Review shall be conducted to ensure the continuing suitability, adequacy, and effectiveness of BIMCO Quality Management System. BIMCO shall review the QMS at defined frequency.

The project Manager shall be responsible to schedule Management Review Meetings and to distribute Agenda of Management Review Meeting to all concerned BIMCO personnel prior to the meeting.

4.15.1 The input information for management review includes:

- 1. Follow up actions from earlier reviews
- 2. Results of internal quality audits held during review period

- 3. Client complains and feedback
- 4. Performance review against requirements of Quality Policy and Objectives
- 5. Process performance & product conformance
- 6. Process / Product potential non-conformities and corrective /preventive actions including their status
- 7. Resource requirements
- 8. Changes that may affect QMS and the need for changes to QMS including those to Quality Policy and Objectives
- 9. Vendor's performance
- 10. Opportunities / Recommendations for improvement
- 11. Any other matter relating to QMS and to CONTRACTOR

Minutes of Management Review Meetings shall be recorded and maintained.

4.15.2 Review Output

The output of management review includes any decisions and actions related to:

- 1. Improvement of effectiveness of QMS and its processes
- 2. Improvement of products / services related to client requirements
- 3. Resource needs

The Project Manager shall record the proceedings of management review meeting in the management review report and responsible for its distribution to BIMCO top management and all concerned.

4.16 Project Quality Key Performance Indicators:

BIMCO established Project Quality Key Performance Indicators (KPIs) to check, control and improve its performance during all the project phases and form the basis for the Contractor performance improvement.