

UNITED CONTRACTING WORKS PVT. LTD

QUALITY ASSURANCE PLAN

QUALITY POLICY

QUALITY POLICY STATEMENT

UNITED CONTRACTING WORKS PVT. LTD. is committed to achieve and sustain excellence in its solutions and services business through an established QUALITY MANAGEMENT SYSTEM.

Everyone at UNITED CONTRACTING WORKS PVT. LTD. is responsible and accountable for fully satisfying our customers, as per contractual, statutory and regulatory requirements, with best in class solutions and services.

QUALITY OBJECTIVES

- **Build a mutually rewarding relationship with our customers, ensuring their long term success, through understanding of their needs and expectations.**
- **Achieve our commitments for quality, cost & schedule.**
- **Drive continual improvement and innovation based on efficient business processes, well defined measurements, best practices and customer surveys.**
- **Develop team competencies, creativity, empowerment & accountability through enablement, development programs, strong management involvement and commitment.**

Project Quality
Manual

Doc No: UEW/QAP/Doc-0001

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IV ABRREVIATION

SL No.	ABBREVIATION	EXPANSION
	PMD	Planning and Monitoring Department
	ADM & HR	Administration & Human Resource
	QA	Quality Assurance
	QC	Quality Control
	DG	Design
	PD	Procurement Department
	MM	Material Management
	SIT	Site Implementation Team
	EHS	Environment Health and Safety
	T&C	Testing and commissioning
	PQM-	PROJECT QUALITY MANUAL
	WP	Working Procedure
	FQP	Field Quality Plan
	TP	Testing Procedure
	TR	Test Report
	CL	Check List

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MQP

Manufacturer Quality Plan

FM

Format

ITP

Inspection Testing Plan

MP

Management Procedure

SP

System Procedure

NCR

Non conformance Report

IQA

Internal Quality Audit

MRN

Material Receipt Note

MIV

Material Issue Voucher

MRAR

Material Receipt and Acceptance Report

FCN

Field change Note

ECN

Engineering Change Note

DCN

Design Change Note

V. DECLARATION

All the contents in this project quality manual are inline with organizational objectives. The further requirements for implementations of the same shall be referred as per standards and requirements and it shall be complied.

1.0 INTRODUCTION

The quality of the end product of any process depends on how each and every operation of whole process is executed. QA has gained wide acceptance all over the world as the best possible means of achieving the desired quality of any product / process. The main purpose of the QA programmed is to ensure that all the activities are carried out in a systematic and planned manner in accordance with standard approved procedures, specifications and drawings. A well-documented QA program has been established for all the activities carried out by UNITED ENGINEERING WORKS.

UEW considers that all actions needed to achieve customer satisfaction must be taken, and it is the responsibility of everybody to provide satisfaction to both external and internal customers. Appropriate measurements are defined, used, and analyzed to obtain information relating to customer satisfaction. This information will be used to implement decisions in due time and to continually improve processes and systems.

PURPOSE

This Quality Manual, here after referred to as PQM, is to provide assurance to the Client.

PQM aims to facilitate a systematic approach in execution of all activities that affect quality. It is intended to ensure

- 1) Task Performance as per requirements, standard procedures and specifications.
- 2) Verification that each activity has been performed satisfactorily.
- 3) Implementation of corrective actions wherever necessary.
- 4) Documentary evidence to demonstrate the achievement of specified quality.

APPLICABILITY

This QA manual is applicable for all activities OF FIRE FIGHTING WORKS. It will address the following Activities

1. Designing of Shop drawings for FIRE FIGHTING WORKS.
2. Procurement of material.
3. Receipt of material.

4. Storage and Preservation.
5. Training, Qualification and Certification of manpower.
6. Procedure of Installation.
7. Testing and Commissioning.
8. Implementation of FCNs and NCRs.

2.1 Preparation, review, approval, change and issue of PQM

The Project Quality Manual is prepared by Quality Manager and is reviewed by the Management Representative (MR), the signed original copy of the PQM shall be under the custody of MR and control copies shall be circulated to all department heads and GM execution.

The General Manager is responsible for issue control of the Project Quality Manual for ensuring that its latest version is available with all concerned as per the Distribution List given at Clause. 13.0 of this PQM. Revisions to the PQM as approved by the General Manager are carried out and Amendment sheet is updated accordingly and the latest revisions are communicated to all controlled copyholders. The MR retains a copy of the obsolete page(s)/ PQM as record with a Red stamped of "OBSOLETE COPY" which may be used for future reference.

Whenever there is any change in the Corporate Quality Policy, the same shall be incorporated in this PQM after taking approval from the Customer.

MANAGEMENT FUNCTIONS

QUALITY POLICY

Our Corporate Quality policy will be the guiding principle for the entire operation in this project.

This will be guided by UEW's working principles "**Determination, Responsibility and Respect**"

QUALITY OBJECTIVES

Corporate Quality Objectives are:

- **Build a mutually rewarding relationship with our customers, ensuring their long term success, through understanding of their needs and expectations.**
- **Achieve our commitments for quality, cost & schedule.**

- **Drive continual improvement and innovation based on efficient business processes, well defined measurements, best practices and customer surveys.**
- **Develop team competencies, creativity, empowerment & accountability through enablement, development programs, strong management involvement and commitment.**

ABBREVIATION

PMD	- PLANNING AND MONITORING Department
ADM & HR	- ADMINISTRATION & HUMAN RESOURCE
QA	- QUALITY ASSURANCE
DG	- DESIGN DEPARTMENT
PD	- PROCUREMENT DEPARTMENT
SIT	- SITE MANAGEMENT TEAM
EHS	- ENVIROMENT HEALTH AND SAFETY
T&C	- TESTING AND COMMISSIONING
ITST	- INFORMATION TECHNOLOGY SUPPORT TEAM

- **PMD:** Responsible for overall planning and keeping track of the project. PMD will be responsible for co-ordination with all other department
- **ADM & HR:** Will be responsible for providing not only all necessary facility but also to ensure good organizational behavior such as timekeeping, compliances, support welfare activities etc. within the organization. And HR is responsible for recruitment & development and retention of Man Power.
- **QA:** Responsible for Total Quality.
- **DG:** Responsible for generation of shop drawings, get approvals from client/consultant and issue the GFC for execution.
- **PD:** Responsible for purchase of all the materials required for project and make them available in time at site.
- **SIT:** Responsible for meeting execution schedule ensuring all necessary safety and quality.
- **EHS:** Responsible for safety of personals, material, good housekeeping and other safety compliances including but not limited to hazard analysis and prevention of site accident.
- **T&C:** The final Testing and commissioning of the whole electrical system is laid by this team.
- **ITST:** This support team is responsible for maintaining and troubleshooting of the IT networks on which UEW is highly dependant for correspondence and information (presently under Admin Dept.)

PROJECT ORGANISATION

Project Manager heading the UEW project office will report to General Manager based at UEW Zonal office, Noida and has the overall responsibility of implementing the QA/QC procedures for all the activities carried out by UEW project team.

Responsibility and Authority

Roles and responsibility of each function is given under section 3.3 of this document.

The responsibility for implementing the quality policy and quality objectives lies with the General Manager-Projects.

Resources

General Manager is committed to identify the material and human resources needed for management, performance of work and verification activities affecting quality and to assure they are provided, including resources to perform regular internal quality audits of the activities.

FUNCTIONAL DISTRIBUTION

It shall be the responsibility of the individual groups to ensure that all activities are performed to achieve the specified quality. The head of each group shall also co-ordinate with erection team at site and UEW erection engineers to ensure that jobs are adequately planned and executed with due implementation of safety and house keeping practices.

The Specific responsibilities of individual groups are applicable as described below.

General Manager

- Overall project set-up and planning
- Verify all contractual obligations, risk assessment, financial status, and overall schedule
- Establish Customer relations
- Review/Approval of Financial Plan, Risk Assessment, Non standard solutions
- Determine necessary resources for project execution
- Identify/Nominate team members together with functional management
- Ensure that Roles and Responsibilities are clearly defined and understood by team members
- Escalation of issues to customer related with site constraints and the other issues requiring direct attention from Customer.

Quality Assurance:

- To ensure that all the Project activities are carried out by UEW in a systematic and planned manner in accordance with standard approved procedures, specifications, FQP and working procedures.
- To inspect and clear the inward materials randomly.
- To maintain non-conformity, internal & external Audit records.
- To ensure all tools & equipments in use are duly calibrated & maintained.
- Controlling and ensuring all project related documents and records in a systematic manner up to handing over of all documents and records with easy identification and traceability.
- To ensure that man power, material used for project execution are duly qualified and approved.
- To stop the activity in case of non-compliance of specified requirements and maintain the records.
- To conduct trainings.

Planning

- Planning is done to secure project deliverables with efficient utilization of resources
- The schedule milestones/deadlines on what we have committed to customer or as per contract
- To prepare overall schedule and monitoring the progress.
- To prepare monthly schedule based on overall erection activities.
- To generate necessary information regarding resources utilization.
- To prepare daily, weekly and monthly progress reports.
- To prepare physical & financial reports.
- Coordinate with project manager, client and purchase department to plan activities as per project requirements.
- Obtaining the day to day progress reports from site teams

3.3.4 Design

- Analysis of Contract Agreement, Tender Document and Technical specification
- Coordination with vendors for vendor drawings.
- Prepare shop drawings
- Obtain Client/Consultant approval for drawings.

Procurement Department

- Analyze Purchase Requisitions from Planning Dept.
- Plan Target price as per budget received.
- Analyze the requirement according to Contract agreement, tender documents, technical specification and approved drawings.
- Send Enquiry to vendors, Analysis of quotations from vendors
- Negotiation with Vendors, Issue PO.

- Follow up material dispatch, Inform QA for inspections
- On time delivery of materials at site.
- Authorize payment, based on appropriate verification of received material or services

Site Management:

- To ensure all the erection activities of the project are planned & executed as per approved Drawings, specifications, procedures and approved quality plan issued by the UEW and qualified personnel with co-ordination by Safety, QA and Stores group.
- To prepare erection procedures, etc.
- To comply all customer requirements, NCRs, to meet the specifications.
- To prepare quality records.
- Submission of Progress report to Client.
- Generation of DPR (Daily Progress Report).

Stores:

- To ensure the receiving and issuing of only passed materials to site erection activities.
- To ensure proper handling, storage of free supply materials as per manufacturer documents.
- To maintain identification and traceability for materials.
- To ensure prevention of damage and deterioration during handling & storage.
- To ensure periodic verification of materials from deterioration.
- To inform material status to the planning department
- To maintain proper accounting for supply and free issued materials.

Testing and commissioning

- To ensure testing and commissioning as per contractual requirements
- To maintain test reports as per FQP/ IQP

EHS:

- To ensure that workmen follow all necessary safety practices to avoid minor or major accidents, resulting in loss of human life, damage to plant property affecting the project schedule.
- To prepare schedules for imparting safety training and constantly monitor and ensure that safe work procedures are practiced at site.
- Highlight the necessity of safety by conducting safety seminars, safety awareness programs, safety training programs & PPE"s talks at site.
- Ensure preparation of Job Safety Analysis of critical works.
- Conduct investigations of accidents/ dangerous occurrences and recommend appropriate safety measures.

- Facilitate administration of first aid at site.
- To ensure qualified and fit for site execution of all tools and tackles, machineries and scaffolds
- To prepare Job hazards analysis and getting approval from Client.
- To maintain all check list records and documents
- Hose keeping of all areas and maintaining of registers.

ADMINISTRATION:

- Set up and maintain site office
- Office and site Logistics
- Security
- Labour act compliance and other permits
- Employee welfare and logistic support
- To ensure that at all times, the work place, office, warehouse and surroundings are kept clean and tidy free from scrap and unwanted materials.
- Scrap generated at work places shall be collected in scrap collection boxes and dumped at designated place everyday to ensure clean condition at work place, which shall help in prevention of occurrence of minor/major accidents.

QUALITY MANAGEMENT SYSTEM

Quality Manual

This Project Quality Manual (PQM) is the Quality Manual for this project. It covers

- (i) Documented quality policy and quality objectives
- (ii) Structure of the documented quality system and reference to the documented in line with standard and requirement of the project
- (iii) Description of various processes, sequences and interaction of these processes identified for QMS.

Quality Planning

The Quality Plans (QPs) issued to control the project activities include Manufacturing QPs, Field QPs and Inspection QPs. These quality plans are established in addition to standard Management procedures to cover activities common across all departments in line with project requirements and other working procedures or method statements for specific activities/ site work.

Structure of documented quality system

The documents supporting the Quality System are organized according to the following levels:

Level 1 Project Quality Manual (this document)

Level 2 Management procedures, system procedure, Working procedures, Operations instructions, method statements, test plans and Quality Plans.

Level 3 Formats, work templates and check lists.

Management Review

Effectiveness of the quality system is evaluated through half-yearly Management Review meetings and corrective action, if any, is taken as per the outcome of these reviews.

Review Input

The inputs for these review meetings include:

- a) Follow up action from previous Management reviews
- b) Results of audit
- c) Customer feedback
- d) Process performance and product conformity
- e) Status of preventive and corrective actions
- f) Changes that could affect the Quality Management System
- g) Recommendations for improvements
- h) Resources including training
- i) Any other

3.4.4.2 Review Output

The output from the Management review include any decision and action related to improvement of the effectiveness of the Quality Management System and its processes, products and the resources needed to maintain the Quality Management System.

4.0 PERFORMANCE FUNCTION

BUSINESS AND CUSTOMER OBJECTIVES MANAGEMENT

Management of business objectives and customer needs are done through mainly following the process and activities of the following two Management Procedures.

1. Procedure on Project Management
2. Procedure on site Management

These procedures ensure:

1. Methods and practices relevant to these processes to the extent necessary to achieve consistent operation.
2. Implementation criteria to control processes to the extent necessary to achieve product conformity with the customer requirement.
3. Verification processes that can be operated to achieve product conformity to achieve customer requirement. Type of review, tests and other actions carried out are identified.
4. Implementation arrangement for measurement, monitoring and follow up actions to ensure processes continue to operate to achieve planned results and outputs.
5. The availability of information and data necessary to support the effective operation and monitoring of the processes.

These procedures also ensure that:

1. The requirements given by the customer are adequately and clearly reviewed and analyzed before acceptance of order.
2. The review includes customer related concerns, technical concerns, management concerns, legal, security, risks and confidentiality concerns.
3. Any difference between requirements contained in the order or letter of intent are mutually resolved both technically and commercially before acceptance.
4. The organization has ability to meet the defined requirements

PROCESSES

The following processes, sequences and interaction of these processes identified for QMS

DOCUMENT CONTROL

UEW has documented the requirements of the Quality Management System and these documents are controlled. Each document has revision number and date in every page of the document. Whenever a content of the page undergoes a revision, next revision number with date is indicated and fresh encrypted document is issued. Each document is approved by the competent authority.

The documented procedure referred above defines the control needed:

- To approve documents for adequacy prior to issue.
- To review and update as necessary and re-approve documents.
- To ensure that changes and current revision status of documents are suitably identified by maintaining master list of documents.

- To ensure that relevant versions of applicable documents are only available at points of use.
- To ensure the documents of external origin such as specifications, drawings, government directories received from outside agencies are identified and distribution controlled.

DRAWINGS AND SPECIFICATIONS

All the activities under the scope of UEW shall be performed as per the Good for construction drawings after approval from Client/Consultants and the applicable specifications.

- Only the latest authorized documents are used in the work areas.
- Obsolete documents are promptly and positively removed to preclude their inadvertent use.
- Timely information of revision is passed on to all personnel concerned to ensure right document only is put to use.

MATERIAL CONTROL

MATERIAL MANAGEMENT

All materials, equipment procured by UEW zonal Office is delivered at UEW project sites after due inspection and clearance by client. Upon receipt of materials at site the stores officer shall carry out the following activities.

- Incoming inspection.
- Storage and Preservation.
- Non-Conformance control.

This procedure ensures the following:

- Identify and hold- non-conforming items from being used in subsequent works.
- Develop a non-conformance disposition and corrective/preventive action implementation procedure.
- Implement accepted dispositions. This shall include requirements for re-inspecting and retesting of repaired and reworked items, with proper documentation.
- Verify the implementation of accepted disposition.

DESIGN CONTROL:

UEW controls design and development plans as per the following steps:

- The input and output of the product are clearly defined.
- Resources required for the project including team structure, responsibility matrix, Sub-contractor details and material resources are identified for each project.
- Technical interface between different individuals and groups such as project Teams, suppliers, users and customer Representatives, QA are identified.
- Analysis of possible risks, assumptions, considerations, statutory requirements and problems associated with the project are also identified.
- Schedules for different phases with target and actual dates of activities are Established.
- Practices, convention, tools and techniques, control of non-conforming product, achieving are also identified.
- Design plans are updated as and when necessary to meet the schedules and these are monitored by the Design department.

Special care is taken to ensure that the following inputs for design are identified and information obtained is recorded for design and development.

- a) Functional and performance requirements from the customer.
- b) Applicable statutory and regulatory requirements.
- c) Requirements derived from previous similar designs.

Further the design reviews, verification, validation and design changes are all carried out as per Management procedure.

4.5. PROCESS CONTROL

The following table provides the normal inputs, process steps and expected output for control.

4.5.1 PLANNING AND MONITORING DEPARTMENT

PLANNING AND MONITORING DEPARTMENT		
INPUTS	PROCESS	OUTPUTS
Contract agreement, Tender Documents, BOQ	Analysis of Contract Agreement, Tender Document and Technical specification	Budgeting
Fund	Cost Planning	Deploy Finance Controller
Resource	Resource Planning	Plan for man , machine material and intimate to

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		the concern department and ensuring the availability
Technical specification	Analysis of Technical Document	Deploy Design Team
	Material Planning	Raise PR to Material management
Site Clearance from Client	Execution Scheduling	Deploy Site Implementation
Status of Each functional department	Analyze Progress of Each functional Department and Co-ordinate	Raise PR for any deficit material to MM
Individual planning of each Department	Store Reconciliation	Deploy Testing Team
	Analyze Over all Progress	Generate Job Status Report

ADMINISTRATION DEPARTMENT

ADMINISTRATION DEPARTMENT		
INPUTS	PROCESS	OUTPUTS
Administration	Generate requirements	Maintain Organizational Behavior
Master Requirements from PMD	Understand and analyze the requirements	Setting up facilities
Budget from PMD	Budgeting for requirements	Maintaining set up facilities
Micro level requirements from all division	Analyzing day to day activities	Full filling day to day requirements

HUMAN RESOURCE

HUMAN RESOURCE		
INPUTS	PROCESS	OUTPUTS
Man power requirements from PMD	Recruitment of man power as per set requirements	Qualified man power
Site management Team feed back and requirements.	Analyzing of requirements	Balanced manpower resource

4.5.4 PROCUREMENT DEPARTMENT

PROCUREMENT DEPARTMENT		
INPUTS	PROCESS	OUTPUTS
Purchase Request from PMD	Analyze PR	Plan for Material Requirements as per tender specifications
Budget from PMD	Analyze the Budget with requirements	Plan Target Price
Contract Agreement, Technical Specifications, Approved drawings	Analyze Contract agreement, tender documents, and technical specification and approved drawings.	Finalize material Description and Send Enquiry to vendors
MQP from QA	Negotiation with Vendors	Issue PO(Purchase Order)
Dispatch Schedule from Vendor	Follow up material dispatch	Materials availability

4.5.5 STORE MANAGEMENT TEAM

STORE MANAGEMENT TEAM		
INPUTS	PROCESS	OUTPUTS
Storage plan	Analyze the requirements for store	Store facility
EHS regulation	Unload and store the materials after inspected by QA according to storage plan following all EHS regulations	Safe unloading and storage
BOQ	Stock verification	Inform to PMD
Execution Schedule	Analyze the Execution schedule and BOQ and issue material to the sub contractor accordingly	If shortage shall be informed to PMD
Material Request from sub contractor	Update material issue register	Material Issue
Executed material Measurement	Reconciliation of material	Store Status Report to PMD

SITE IMPLEMENTATION TEAM

SITE IMPLEMENTATION TEAM		
INPUTS	PROCESS	OUTPUTS
Execution Schedule from PMD	Verify site clearance	Inform any non conformance to PMD
Approved Drawings, Technical specification,	Verify approved drawings with site condition and technical specification	Inform any non conformance to PMD and DD
Store status Report	Verify material status for any shortage	Shortage shall be inform to PMD
Man Power	Analyze the man power with respect to individual ability and site requirements	Man power mobilization
Tools and Tackles	Verify available Tools and Tackles as per approved Method statement.	Inform PMD for any Shortage
Approved Method Statement, FQP	Plan for Execution	Delivering in time
	Inform QA for inspection	Check List
NCR	Necessary corrective actions to get installation approval from QA	Completion, Commissioning and hand over

The controls of all processes in the project are ensured by:

- The availability of specifications, drawings, technical data sheets and operation and maintenance manuals that define the characteristics of the products those are to be achieved.
- The availability of clearly understandable procedures, work instructions if required, check-lists for those activities where they are necessary for the achievement of conformity of the products.
- Use of suitable equipment, while under maintenance.
- The availability and use of suitable measuring and monitoring instruments duly calibrated.
- The implementation of suitable monitoring and measuring processes.
- Suitable methods for validation and release / delivery of products.
- Suitable working environment.

For Erection/Site Execution procedures or method statements related to execution shall be prepared by the Site Engineer/ QA Engineer and, shall be reviewed by Site Manager and shall be approved by Chief Project Manager from UEW. Such documents along with document acceptance note format shall be submitted to CLIENT for review.

LIST OF DOCUMENTS

PROCEDURES/METHOD STATEMENTS.

UEW shall prepare and get the acceptance of Client, the following documented procedure applicable for the activities related to electrical system works. The same will be produced separately.

FIELD QUALITY PLANS

UEW shall prepare and get the acceptance of CLIENT, the following Field Quality Plans applicable to the major activities related to electrical system installation works. The overall quality plans related to the concerned project will be produced separately.

MANUFACTURER QUALITY PLAN

The Manufacturer quality Plan shall be received from vendors and the same shall be submitted to Client for approval prior to releasing purchase order to vendors.

INSPECTION TESTING PLAN

As per tender Agreement.

TESTING AND COMMISSIONING PROCEDURES

UEW shall prepare and get the acceptance of Client. The procedure applicable for the testing and commissioning activities related to the concerned project are done by UNITED ENGINEERING WORKS Testing & Commissioning team. The same will be produced separately.

6.0 TRAINING OF MANPOWER

UEW has established a common procedure Manual for competence awareness and training to determine competence and training needs to provide training to address the identified needs, evaluate the effectiveness of the training at different intervals and maintain appropriate records for education, training, skills and experience of its human resources.

This ensures the creation of awareness at all levels of the employees in the following functions:

- Importance of conforming with the Quality Policy and to the requirement of the Quality Management System.
- The significant impact of their activity on Quality actual or potential
- The benefits of the improved personal performance, the roles and responsibilities in achieving the conformance with the Quality Policy and procedures and with the requirements of the Quality Management System.
- The potential consequence of departure from specified procedure.
- This procedure will be supplemented with a Training Plan specifically prepared for concerned project to take care of customer and key personnel of subcontractor"s trainings.

VERIFICATION FUNCTION

Verification is necessary to ensure that in each stage all activities carried out conform to the stipulated requirements. QA personnel involved with verification of job shall have no responsibility for job execution. The extent of verification depends on the criticality of the component in the whole process and its importance related to safety.

Site Managers/ Engineers carry out inspection of materials delivered at sites, during installation and commissioning activities, and during the final stages of product acceptance as per QP. Evidence of conformance to the acceptance criteria is recorded. At each stage of operation clear acceptance criteria are defined including authorization for acceptance and release of the product.

The quality plans spell out the following

- Verification points and their relative sequence in work progress stages
- Characteristics to be verified at each point by each of the participating agencies.
- Sampling, witness and hold points.

The verification status of each individual item, process shall be indicated by suitable means such as labels, tags, records etc. with regard to their acceptability or non- conformance as per verification performed.

8.0 TESTING & MEASURING EQUIPMENT

At site, UEW shall use testing & measuring equipment procured, calibrated & certified. However, the record of calibration shall be maintained listing out the date and validity of calibration and signature and name of authorized person verifying the calibration

Before expiry of validity of the Testing and Measuring equipments shall be sent for re-Calibration to the NABL accredited Laboratory. The List of proposed Testing and measuring instruments with Data Sheet and Valid Calibration Certificate shall be submitted to Client for Prior approval.

9.0 QA PROGRAMME VERIFICATION & REVIEW

Review of the programme shall be done based on the performance evaluation of job carried out and if any non conformance noticed in Material, Installation and procedures, corrective measures are implemented in a timely manner in QA plans and work procedures. Their implementation and effectiveness are verified and documented. Any instance of non-compliance with stipulated requirements shall be suitably rectified and disposed off.

AUDIT

Audit ensures that corrective actions are taken without undue delay to eliminate detected non-conformities and their causes.

- (i) Internal Audit.
- (ii) External Audit

Internal Audit

The internal Audit is conducted once in two months by UEW Project office and covering all functional areas and to confirm that quality system requirements are effectively implemented and maintained.

External Audit by UEW

The External audit is conducted once in a quarter by UEW Zonal Office for verification of implementation of this manual, functional areas and quality system.

CORRECTIVE AND PREVENTIVE FUNCTION

CORRECTIVE ACTION

UEW has established a process for reducing / eliminating the causes for nonconformities in order to prevent recurrence. A procedure have been established to define the following requirements:

- a) Reviewing non-conformity at all stages of product realization.
- b) Determining the causes of non-conformity by addressing root cause.
- c) Evaluating the need for action to ensure that non-conformities do not reoccur.

- d) Determining and implementing actions needed.
- e) Reviewing corrective actions taken.

11.2 PREVENTIVE ACTION

UEW has established a procedure for eliminating the causes of potential non-conformance to prevent their occurrence.

The procedure defines the following requirements:

- a) Identify the potential nonconformity and their causes
- b) Evaluate the need for action to prevent the occurrence of non-conformities
- c) Determining and implementing actions needed
- d) Review the effectiveness of the actions taken

12.0 DOCUMENTATION SYSTEM

12.1 DOCUMENTS

UEW has established a documented procedure to generate and control of documents and records of the Quality Management System for identification, storage, retrieval, protection, retention and disposal of the records as per the documented procedure number **UCWPL/SQF/ELE/DOC-001**. A master list of documents and records generated in this project is prepared and maintained by the Project Manager and his subordinates.

Q.A. records are prepared and maintained to provide objective evidence substantiating all works being carried out meeting the specified requirements of tender specification, applicable codes, procedures, specifications and drawings.

They shall include the following

- Results of inspections, review, tests and audits.
- Work procedures, QA plans and checklists.
- Training, Qualification and certification of personnel
- Non-conformance reports, repairs carried out
- Information pertaining to „as built“ condition of the items in the works.
- DCN"s, FCN"s , ECN"s.

Generation, Indexing, maintenance, control and preservation of all the records shall be undertaken by the Documentation group. Upkeep, maintenance and distribution to the designated agency of all the manufacturing documents, test certificates, shipping release documents, and maintenance / operation manuals are also carried out by Documentation group.

Welding inspection reports, Calibration reports, erection/ installation reports, inspection/ testing reports, procedures, Quality Assurance plans and all other contract related documents are also available with Site Management/ T & C group.

Categorization of Records:

Records shall be categorized as „Permanent“ (P) and „Non-Permanent“ (NP) records.

Permanent records which shall be required for the entire life of the project or till completion of Defect Liability Period. Non Permanent records which shall be necessary to demonstrate accomplishment of the activity in accordance with the specification requirements, these shall be retained till the systems are handed over to customer.

STORAGE AND PRESERVATION OF RECORDS

A permanent record storage facility shall be established protected from damage, destruction or deterioration by fire, water, rodents and adverse environmental conditions.

The facility shall enable;

- Access control for persons
- Ready retrieval of any desired records
- Inspection and maintenance of records

Inspection of record storage system shall be undertaken at least once in a month to ensure that the facility is adequate and well protected, to check if records are updated based on data resulting from Design, Quality management, installation, testing and commissioning works.

INFORMATION MANAGEMENT

It shall be ensured that information pertaining to daily, weekly and monthly progress, availability status in respect of Design Drawings, Working Drawing(Good for construction), requisition materials, hardware"s, tools, consumables, status of implementation of DCN"s/ FCN"s, list of drawings available status of qualification of manpower deployed, procedures, audit records and other QA documents are stored regularly.

13. DISTRIBUTION

- President
- Vice President
- General Manager Project
- Q & HES Department
- Procurement Department
- F&C Department
- HR & ADMIN Department
- Commissioning Department