



2.2

Quality Assurance & Quality Control Policy

	SYNCHRO Engineering Co. Ltd شركة إينكرو الهندية المحدودة	Documents No.: SYN/MNL-2011-002		
		Issue No.: 1	Rev. No.: 4	Department: Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date: 01-11-2011	Rev. Date: 01-01-2018	Page: 1 of 9

TABLE OF CONTENTS

- 1.0 INTRODUCTION
- 2.0 PROJECTS QUALITY PLAN
- 3.0 QUALITY CONTROL MEASURES
- 4.0 QUALITY ASSURANCE MEASURES
- 5.0 PROJECTs' PROCEDURE AND INSTRUCTIONS
- 6.0 PROJECTS QUALITIES RESPONSIBILITIES
- 7.0 PROJECTs' QUALITY CONTROL PLANS
- 8.0 INSPECTION AND TESTING
- 9.0 SURVEILLANCE
- 10.0 VERIFICATION AND AUDITS
- 11.0 INTERNAL AUDITS
- 12.0 COMPLIANCE AND AUDITS
- 13.0 OWNER QUALITY AUDITS

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018

	SYNCHRO Engineering Co. Ltd شركة اينكرو الهندية المحدودة	Documents No.: SYN/MNL-2011-002		
		Issue No.: 1	Rev. No.: 4	Department: Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date: 01-11-2011	Rev. Date: 01-01-2018	Page: 2 of 9

1. INTRODUCTION:

SYNCHRO Engineering shall be responsible to plan, establish, implement and maintain a Quality System for the proposed each project as per the CONTRACT in line with ISO 9001, and the requirements of any projects' specification for Quality Assurance Documents.

SYNCHRO engineering shall be responsible for all Quality Assurance and Quality Control functions and shall at all times provide adequate, competent and qualified supervision and inspection personnel, to ensure that the quality of work is met and timely inspected.

SYNCHRO engineering shall implement the necessary quality system to ensure the successful completion of the Project to provide safe, reliable, operative facilities and meet all specified requirements of the Contract.

This objective shall be achieved by the efforts of ensuring all hardware, components, systems and their integration into the project facilities to meet the standards and specifications pre-selected for their performance, reliability and safety.

Project quality requirements are implemented and quality is controlled by working in a systematic manner to follow relevant procedures. This systematic manner includes audits and surveillances to identify possible deficiencies in the use of procedures which have been accepted as requirements.

All personnel working on the Project (services project) are given definition of their responsibilities and fully acquainted with the specific Project quality requirements.

All subcontractors employed by SYNCHRO engineering are qualified and employ quality assurance management systems of a standard suitable for the subcontracted activities.

All vendors used by SYNCHRO engineering for the supply of equipment components or materials for the project applying effective quality assurance/control management systems.

All products and services supplied by SYNCHRO engineering or their vendors and subcontractors conform to contractual and regulatory requirements.

Non-compliances are minimized through prevention, timely detection and resolution, and continual improvement. All noncompliance shall be timely discovered and rectified or remedied up to properly cleared.

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018

	SYNCHRO Engineering Co. Ltd شركة إينكرو الهندية المحدودة	Documents No.: SYN/MNL-2011-002		
		Issue No.: 1	Rev. No.: 4	Department: Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date: 01-11-2011	Rev. Date: 01-01-2018	Page: 3 of 9

2. PROJECTS QUALITY PLAN:

SYNCHRO engineering shall prepare a specific Project Quality Plan for the CONTRACT, detailing all quality aspects as defined in PE specification mentioned above and submit to PE for their approval, within 4 weeks' from the CONTRACT effective date. The Quality Plan shall cover, in addition to compliance with project specification all aspects of on and off site inspections, inspection request forms, non-conformance reports, remedial actions, records, scheduling, etc.

SYNCHRO engineering shall effectively implement the quality system defined in the plan, verify execution of the implemented system and issue reports of audits performed. Any non-conformance will be handled in line with the requirements of the Quality Plan. Any deviations / non-conformance that require PE approval will be submitted to PE with adequate back-ups justifying the acceptability of the deviations / non-conformance. SYNCHRO engineering shall be responsible to extend these requirements to its sub-contractor and suppliers.

3. QUALITY CONTROL MEASURES:

3.1 Quality control activities

Quality control activities for the Project shall include the following, as a minimum:

- 3.1.1 Development of inspection and test plans (ITPs), procedures, schedules and reports for Project/maintenance services, these ITPs to be share with end user/client.
- 3.1.2 Review, approval and monitoring of vendor / sub-contractor inspection and & test plans
- 3.1.3 QA/QC requirements for sub-contractor / vendors
- 3.1.4 QA/QC requirements for all site related activities (Field QA/QC plan)
- 3.1.5 Design control
- 3.1.6 Quality control of procurement procedures
- 3.1.7 Document Control
- 3.1.8 Safety & Environmental control
- 3.1.9 Verification of all test certificates for compliance with PE requirements

3.2 Organization & Responsibilities:

SYNCHRO engineering has figured out the guidelines for the organizational structure, functional responsibilities, levels of authority, and lines of internal and external communication for management, direction, and execution of the Project Quality Manual and Quality Plan. The Quality Plan is outlined and implemented and clearly delineates the responsibility and authority of the various personnel and organizations involved.

Persons and organizations performing quality assurance functions and quality verification and acceptance activities have sufficient authority and organizational rights to:

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018

	SYNCHRO Engineering Co. Ltd شركة [اينكرو الهند] [ية المحدودة]	Documents No.:		
		SYN/MNL-2011-002		
		Issue No.:	Rev. No.:	Department:
		1	4	Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date:	Rev. Date:	Page:
		01-11-2011	01-01-2018	4 of 9

- 3.2.1 Initiate action to prevent the occurrence of product noncompliance;
- 3.2.2 Identify and record any product quality problems;
- 3.2.3 Initiate, recommend, or provide solutions through designated channels;
- 3.2.4 Verify the implementation of solutions;
- 3.2.5 Control further processing, delivery, or installation of nonconforming products until the deficiency or unsatisfactory condition has been corrected.

All work performed by SYNCHRO engineering is under the overall direction and control of its Project Management Organization, dedicated to ensuring that Owner's project objectives and goals are met and that SYNCHRO engineering's contribution to the engineering, procurement, construction and commissioning and servicing is fully coordinated with Owner.

The SYNCHRO engineering Project Management Organization is led by the Project Manager and it includes the Managers of QHSE, Engineering, Project Controls, Construction, Procurement, HSE, Logistics, Commissioning and other departments.

QHSE Manager shall report to and receives instructions from the Project Manager. In the event, quality related concerns cannot be resolved by the Project Manager, QHSE Manager can communicate with the GM of SYNCHRO engineering.

The QHSE Manager is responsible for the development and maintenance of the Project Quality Manual, Project Quality Plan, and for assuring that Project activities are performed and accomplished in accordance with the Project Quality Plan and approved procedures. Specific responsibilities include:

1. All aspects of quality for work managed, designed, and constructed by SYNCHRO engineering;
2. Liaison with engineering, procurement, project controls, and construction departments on quality control activities performed by those departments;
3. Supervision of the QHSE group and the functional guidance of QHSE personnel assigned to the project;
4. Providing independent management support for project QHSE personnel;
5. Advising management on all quality-related matters; Auditing and monitoring of all Project quality activities;
6. Identifying quality problems, initiating corrective action, and verifying the implementation of corrective action.

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018

	SYNCHRO Engineering Co. Ltd شركة اينكرو الهندية المحدودة	Documents No.:		
		SYN/MNL-2011-002		
		Issue No.:	Rev. No.:	Department:
		1	4	Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date:	Rev. Date:	Page:
		01-11-2011	01-01-2018	5 of 9

3.3 QHSE Supervision:

QHSE supervisors are assigned to each job site. They shall report to and receive directions from the QHSE Manager. QHSE supervisors are responsible for execution of the Project Quality Plan, including the inspection activities at site. They report all quality related activities to the Project Manager in addition to reporting them to the QHSE Manager.

All personnel assigned to perform quality related activities shall be properly trained and qualified. Personnel performing assigned tasks will be qualified on the basis of appropriate education, training, and/or experience. Project personnel will receive general indoctrination and training in the specifics of the Project Quality Manual and Project Quality Plan and specific training and familiarization in the implementing procedures applicable to the work being performed. Appropriate records will be maintained by Project Document Control to document all required training.

Personnel performing verification activities shall be independent of those having direct responsibility for the work being performed. These activities include inspection, test, and monitoring of the design and installation activities and the performance of design reviews and audits of the quality system and processes. The independent checking of design documents shall be by an individual other than the immediate supervisor unless the supervisor is the only technically qualified individual available.

The overall quality system implemented on the Project will be reviewed at appropriate intervals by the Project Director/Manager to ensure its continuing suitability and effectiveness. The reviews will primarily be satisfied through the review and assessment of quality audits performed by Project QHSE Organization, client complaints, feedback from personnel etc. The results of the reviews shall be documented and maintained by the QHSE department.

3.4 Quality Management System

SYNCHRO engineering shall implement a Quality Management system that effectively provides procedures for managing the quality of engineering, procurement, construction, commissioning and warranty of the Project Facilities. This quality system shall meet the requirement of International Standard Organization ISO-9001:2008 series.

A Quality Management System is established to provide an effective means of ensuring that the services and products provided by SYNCHRO engineering conform to the requirements specified by Owner. The quality system places a heavy emphasis on the prevention of problems rather than dependence of detection once the problems have arisen. The Project Quality Manual,

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018

	SYNCHRO Engineering Co. Ltd شركة إينكرو الهندية المحدودة	Documents No.:		
		SYN/MNL-2011-002		
		Issue No.:	Rev. No.:	Department:
		1	4	Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date:	Rev. Date:	Page:
		01-11-2011	01-01-2018	6 of 9

along with Project Quality Plan and associated project work procedures and instructions, form the documented Quality System for the Project.

4. QUALITY ASSURANCE MEASURES

SYNCHRO has established measures which assure that activities affecting quality are adequately prescribed and accomplished in accordance with documented instructions and procedures of a type appropriate to the circumstances. These measures provide for the following as a minimum:

- The preparation of a Quality Plan in accordance with the specified requirements;
- The identification and acquisition of any controls, processes, inspection equipment, fixtures, total production resources, and skills that may be needed to achieve the required quality;
- The updating, as necessary, of quality control, inspection, and testing techniques, including the development of new instrumentation; The identification of any measurement requirements involving capability that exceeds the known state of the art in sufficient time for the needed capability to be developed;
- The clarification of standards of acceptability for all features and requirements, including those which contain a subjective element;
- The compatibility of the design, the production process, installation, inspection and test procedures, and the applicable documentation;
- The identification and preparation of quality records.

Design, procurement, and field activities are defined and conducted according to written procedures. These procedures outline personnel responsibilities and methods used to assure that adequate controls of the activities are employed. These procedures shall be approved by owner prior to start of each activity.

Each project Department is responsible for the identification and/or preparation of the necessary procedures and/or instructions which identify their practices in the implementation of the quality program and the Contract. The content and extent of detail contained in the instructions and procedures is based on the complexity of the work to be performed and the understanding, skill, and knowledge required of the user.

5. PROJECTS' PROCEDURES AND INSTRUCTIONS

Where appropriate, current SYNCHRO procedures may be used and incorporated in the project procedures. Procedures and/or instructions shall define the coordination of responsibilities, activities, and areas of interface of all relevant departments. Actions required to perform the work shall be defined in a logical sequence. Responsibilities for these actions shall be defined and applicable resources, deliverables, and standards of quality specified.

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018

	SYNCHRO Engineering Co. Ltd شركة [اينكرو الهند] [ية المحدودة]	Documents No.:		
		SYN/MNL-2011-002		
		Issue No.:	Rev. No.:	Department:
		1	4	Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date:	Rev. Date:	Page:
		01-11-2011	01-01-2018	7 of 9

6. PROJECT QUALITY RESPONSIBILITIES:

The QHSE Manager is responsible for the development, maintenance, and control of the Project Quality Manual. The Project Quality Manual is approved for issue by the Project Director/Manager. In case of omission or contradiction between this Manual and the Contract, the Contract shall take precedence.

7. PROJECT QUALITY CONTROL PLAN

A Project Quality Control Plan shall be established, maintained, and controlled by the QHSE Manager or his designee. The plan shall define the quality objectives to be attained, the specific allocation of responsibilities and authority during all phases of the Project, and the procedures, methods, and work instructions to be applied. It shall also specify those areas of work that will be subject to audit and review by inclusion of a preliminary audit schedule. This audit schedule shall then be issued as a separate document.

The Quality Control Plan will provide for the following, as a minimum:

A description of the products and/or services covered by the Project Quality Manual;

SYNCHRO project organization giving key job titles, lines of authority, responsibilities for the implementation of the Project Quality Manual;

7.1 A description of any allocation of quality functions or other relevant responsibilities of various project groups and SYNCHRO departments;

7.2 A listing of implementing procedures addressing activities covered by the Project Quality Plan, including those planned but not yet written, along with, the inclusion of activity/procedure tables relating the project activities and deliverables to the governing documents that control the production of deliverables for the Project (project management, quality assurance, engineering, procurement, cost control, planning and scheduling, construction and installation, and pre-commissioning and commissioning);

7.3 A proposed Quality Assurance department audit schedule;

7.4 The review of contract documents;

7.5 The development, in conjunction with Engineering and Procurement, of quality inspection requirements for equipment;

7.6 The development of quality system requirements specifications for vendors and subcontractors;

7.7 The review of vendor and subcontractor quality submissions for bid evaluation and after award;

7.8 Auditing throughout the duration of the project to verify that quality system objectives are being achieved;

7.9 The expediting and timely close out of any deficiencies identified;

7.10 The assembling of QA record documentation

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018

	SYNCHRO Engineering Co. Ltd شركة اينكرو الهندية المحدودة	Documents No.: SYN/MNL-2011-002		
		Issue No.: 1	Rev. No.: 4	Department: Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date: 01-11-2011	Rev. Date: 01-01-2018	Page: 8 of 9

8. INSPECTION AND TESTING:

The inspection and testing activities described in the QA Plan for engineering, procurement, construction, commissioning and warranty shall, in addition to the items described above, identify and include:

- A. A documented sequence of inspection, testing and verification activities;
- B. Activities to be subcontracted, including quality program requirements;
- C. Method of verification of vendors and subcontractor conformance to requirements;
- D. Incoming, in-process and final inspection and verification requirements;
- E. Where statistical techniques will be employed;
- F. The identity of the authority responsible for the approval and release of conforming product;
- G. Traceability requirements.

SYNCHRO shall require vendors of engineered materials and equipment to implement a quality system, which meets or has the potential to meet the applicable ISO 9001:2008 series standard or an equivalent standard, subject to Owner's approval.

9. SURVEILLANCE

All the project departments shall seriously and strictly follow and implement the quality plan, and the project quality management department will organize the surveillance and inspection over its implementation.

The surveillance and measurement will be carried out and careful record will be taken.

Construction scheme shall be strictly followed, and effective daily surveillance to the construction process shall be carried out, taking carefully construction and monitoring record.

10. VERIFICATION AND AUDIT

Verification and audit of conformance to the Quality System, described in the Project Quality Manual, is achieved through the performance of planned and documented audits of all elements of the system. These audits are scheduled on the basis of the status and importance of the activity and performed by trained Quality Assurance personnel. The audit results are reviewed by the QHSE Manager and the Project Manager to determine the effectiveness of the Quality System in achieving the stated project quality objectives and to identify any recurring deficiencies requiring project management attention.

11. INTERNAL AUDIT

SYNCHRO engineering QHSE Corporate Management and Project Management (Sudan) shall conduct internal audits at planned intervals to ensure that all works carried out for the Projects are as per Owner's instructions, specifications, codes and standards.

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018

	SYNCHRO Engineering Co. Ltd شركة [اينكرو الهند] [ية المحدودة]	Documents No.: SYN/MNL-2011-002		
		Issue No.: 1	Rev. No.: 4	Department: Management
QUALITY ASSURANCE AND QUALITY CONTROL POLICY		Issue Date: 01-11-2011	Rev. Date: 01-01-2018	Page: 9 of 9

Regularly audits on Quality Management System shall be carried out to establish the continual effectiveness of the Management System and procedures. The result of the audits shall be recorded and brought to the attention of the personnel having responsibility in the area audited.

12. COMPLIANCE AUDITS

The compliance audit shall be conducted by Corporate QHSE Manager for project activities done in HQ office and Project QHSE Manager for the activities execute at Project Site Office.

13. OWNER QUALITY AUDITS

Upon notification from Owner, SYNCHRO Project Management shall provide all necessary cooperation to Owner Representative for an independent Quality Audits for the project and necessary information, access to site and etc. Owner shall have an Audit Closed Out meeting to discuss and finalize with SYNCHRO personnel being audited after evaluating the audit findings prior issuance of NCR to SYNCHRO Project Manager at site.

SYNCHRO Project Manager at site shall ensure department that hold responsibility on the NCR issued by Owner as agreed to take immediate corrective actions in order to close the NCR and to prevent from recurrence.

End of Policy

Author	Reviewed By	Approved By	Effective Date
M. Musa	M. Eltayeb	M. Jamal	01-Jan-2018



SYNCHRO Engineering Co. Ltd

 info@synchro-sd.com

 www.synchro-sd.com