

**Lund Roberts (Engineers) Ltd**  
**Quality Manual**  
**BS EN ISO 9001:2008**

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**1.1 Quality Policy Statement and Objectives.**

It is the policy of Lund Roberts (Engineers) Ltd to maintain a quality management system including the required documentation for registration to BS EN ISO 9001: 2008. Installations that the company undertake shall also meet the requirements of the Industry, IEE and Statutory regulations.

The company's scope of business covers the design, installation and commissioning of electrical and building services installations.

A planned Quality Management System (QMS) has been introduced to ensure that our service conforms to client and order requirements plus the goals of our organisation. The Documented Quality System (DQS) as detailed in the quality policy manual procedures and work instructions are the normal basis of working and will be applied to all work.

To achieve, maintain and continually improve the effectiveness of the quality system, the company, employs trained and skilled personnel. The company provides additional training to improve their skills.

The organisation reviews and considers the constructive comments/inputs of all personnel and clients in an effort to improve our service.

The company requires the commitment and participation of all personnel, seeking at all times to:

- a) Take responsibility for achieving and sustaining the quality of their work so as to continually meet or exceed our client's stated or implied needs.
- b) Eliminate and prevent from occurring all defects and client complaints throughout the organisation.
- c) Improve the organisational goals of increased quality.
- d) Reduce waste and improve efficiency.
- e) To actively contribute towards a safe working environment.
- f) To execute all tasks giving due consideration to environmentally friendly issues.
- g) To build new and develop new and existing client relationships

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The Managing Director retains the overall responsibility for the operation, development and maintenance of the QMS. The Quality Manager (QM) is appointed as the management representative with the necessary responsibility and authority thereby ensuring that the requirements of the quality system are implemented and maintained.

**Managing Director**

**Mr. D.E. Sands**

Signature  .....

**Date: 08.12.16**

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**1.2 Application / Update Procedure**

Amendments or additions to this manual are the responsibility of the quality manager who will ensure that the relevant documents are amended and issued in the following manner:

1. Incorporate the additions or amendments into the appropriate body of the Text.
2. Amend Page numbers and / or issue levels as necessary.
3. Circulate to the authorised recipients, the details of the any amendments.

Amendment Issue Level	Amendment Issue Date	Description / Reference Number	Approved
7	17/07/02	Revision to ISO 9001:2000	RJK/DSS
8	06/01/05	Revised Organisation Chart	RJK/DSS
9	08/04/05	Revised Objectives Revision to sections 5.1 & 5.6.1	RJK/DSS
10	25/05/06	Revised Organisation Chart	RJK/DES
11	29/06/09	Amended to replace ref Standard ISO 9001:2000 with ISO 9001:2008 and to update the organi chart	RJK/DES
12	17/05/10	Clauses 6.4 : 7.2.1 & 7.5.4 amended to add environmental raised in new version of the standard.	RJK/DES
13	31/05/11	Organisation Chart updated for new Staff Members. Purch Procedure amended and Procurement Manager Responsibilities added. Clauses 5.5.1; 7.4.1; 7.4.2	RJK/DES
14	26/09/13	Organisation Chart updated to reflect revised responsibility combining QM~QAudit~HS~ Training.	RAK/DES
15	15/01/15	Organisation Chart updated to reflect personnel changes.	RAK/DES
16	21/01/16	Organisation Chart updated for new Staff Members. Estimators' Responsibilities added. Clauses 5.5.1; 7.3.1; 7.3.2; 7.3.3, 7.3.4, 7.4.1 & 7.4.2	RAK/DES
17	31.03.16	Organisation Chart updated for new & leaving Staff Members Engineering Assistant / Document Controller Responsibilities added. Clause 5.5.1	RAK/DES
18	31.08.16	Organisation Chart amended and Manual Clauses amended reflect revised Responsibilities. Clauses: 5.5.1; 7.4.1; 7.4.2; 7.4.3	RAK/DES
19	08.12.16	Organisation Chart updated to reflect personnel changes	RAK/DES

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Refer to flowcharts OP1 to OP18

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**3.0 TERMS AND DEFINITIONS**

The terms and definitions referred to in this manual are as defined in ISO 9000. The following terms used in previous issues of the manual to describe the supply chain have been changed to reflect the vocabulary currently in use.

Supplier            Organisation            Customer

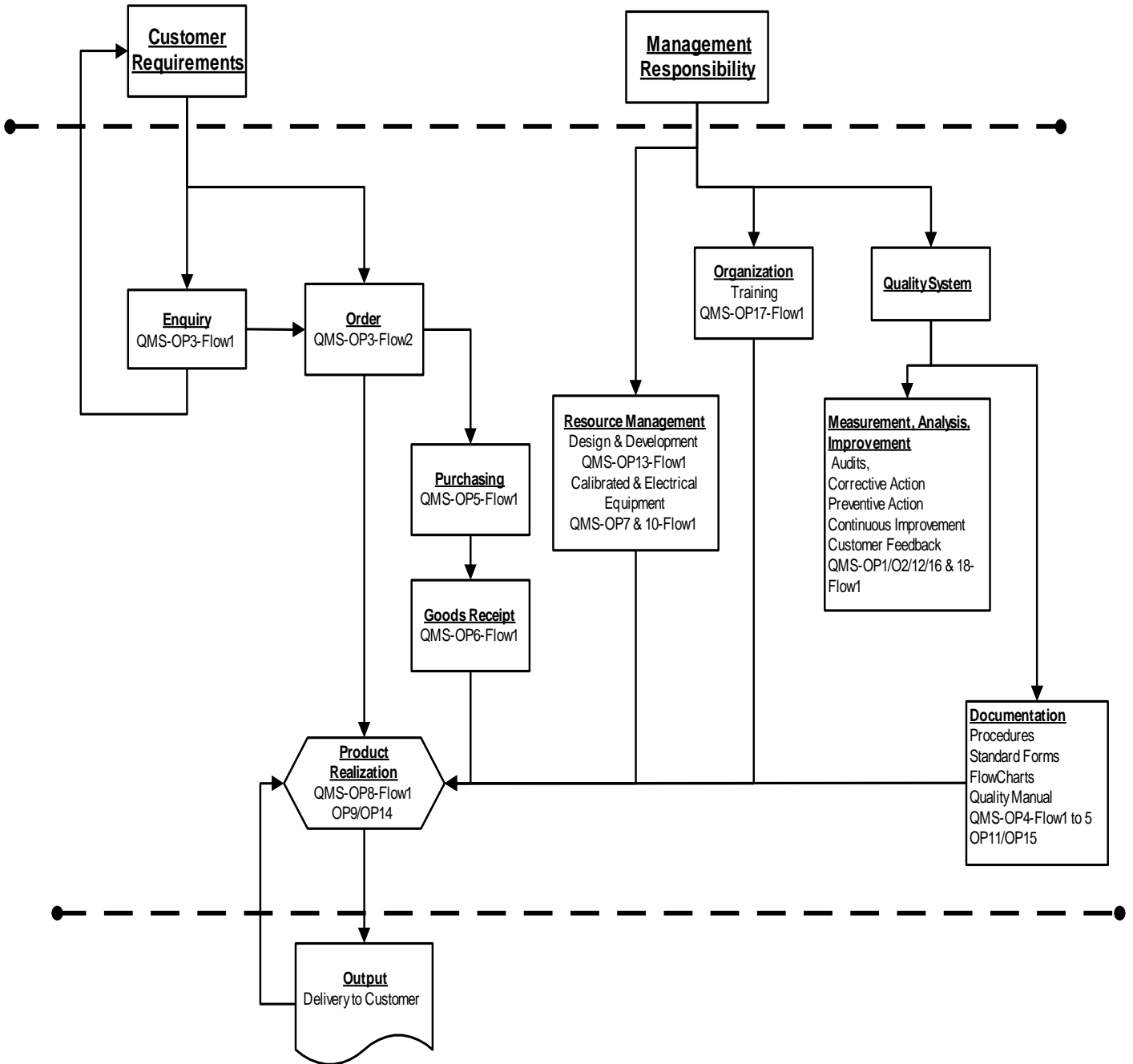
The Term "Organization" replaces the Term "Supplier" used in ISO 9002: 1994, and refers to Lund Roberts (Engineers) Ltd., while the Term "Supplier" now replaces the Term "Subcontractor".

Throughout the text of this manual, whenever the term "Product" occurs, it can also mean "Service".

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**4.0 QUALITY MANAGEMENT**

4.1 General Requirements



(Fig.1) Top Level Process.

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This quality manual prescribes the quality system requirements for use by the company to demonstrate the company's capability to control the processes that determine the acceptability of the products supplied.

The quality management system is monitored at management review meetings for effectiveness and is subject to continuous improvement when opportunities are identified. Management will ensure that resources are provided to enable the system to be maintained and improved.

This quality manual is applicable to all contracts/orders.

Additional requirements may be specified by the client in the contract/order and where stated will form part of special instructions on or attached to the site instructions.

This quality manual does not take place of or override any statutory regulations.

## **4.2 Documentation**

### **4.2.1 General**

The company have addressed the following activities in meeting the quality requirements of the client and international standards.

- a. The preparation of a quality manual, operating procedures and forms.
- b. The identification and acquisition/implementation of any control processes, inspection equipment, installation resources and skills that may be needed to achieve the required quality.
- c. The updating as necessary, of quality control procedures, inspection and testing techniques.
- d. The clarification of standards of acceptability for all features and requirements including those, which contain a subjective element.
- e. The compatibility of the production process, inspection and test procedures and the applicable documentation.
- f. The identification, preparation and maintenance of quality records.

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The major documents that define the QMS are:

**Quality Manual Policy:**

Defines the company's policy on all aspects of the standard. Identifies the procedures developed, implemented and maintained by the company.

**Operating Procedures:**

A series of defined flowcharts detailing how the company performs particular phases of the operation if not already covered by the quality manual policy. These procedures ensure the objectives and goals of the company can be achieved and the customer's needs are satisfied.

**Forms:**

The forms in use by the company are controlled to ensure that all personnel use the required form to undertake and record the associated task.

**4.2.2 Quality Manual**

The quality manual defines an effective and economical management system to ensure that the quality requirements are determined and satisfied through all contract phases including, tender, contract/order, purchasing, installation, inspection, testing and commissioning. The layout of this Manual is formulated to describe the interaction between the various processes of the quality management system.

The system provides for the early detection and correction of actual and potential difficulties, trends or conditions that could result in an unsatisfactory service.

The aim for the introduction and use of this QMS is to remove waste; this is achieved by involving everyone in improving the way things are done. The philosophy of the system is directed towards prevention and continual improvement not detection.

It is emphasised that the quality system specified in this quality manual is the standard to which this company works. However job specific requirements made by the client will be accommodated and will form part of the detailed management and work instructions for that contract. The company will comply with all relevant statutory requirements.

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The company has established and maintains a documented QMS to ensure that the product conforms to the specified requirements of the client and the international standards of ISO 9001:2008.

The organisation does not undertake contracts involving special processes. Clause 7.5.2 is excluded from this manual and the QMS.

#### **4.2.3 Control of Documents**

The company's quality procedures ensure all aspects of quality are addressed. In particular the non-conformance, corrective action and change procedure encourages all personnel to be involved in improvements.

The company has established and maintains procedures to control all documentation and to meet the requirements of the international standard. These documents are reviewed by the QR and approved by the managing director prior to issue by the QR.

All documentation utilised **within** the company relating to the managing system and to the execution of client contracts is controlled. This ensures the issue of documents to the appropriate personnel and under the correct level of authority. All documents are revised and re-issued as necessary, and all obsolete versions are removed from the point of use.

Operating Procedure No. 4 refers.

#### **4.2.4 Control of Records**

The company has developed and maintains records that demonstrate the effectiveness of the quality management system.

All records are stored in a clean dry environment to ensure they remain legible and retrievable. Documents relating to successful tenders are held for a minimum of 5 years or as advised by the client. All documents are filed in chronological order as to their original enquiry number.

Records of inspections/tests performed at a supplier's premises form part of the company's records. In the event that such records are measured on the basis of bench mark/random tests and they are the sole proof that the supplier's work conforms to order requirements, the supplier will make available such records for audit by the company.

Operating Procedure No. 15 refers.

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**5.0 MANAGEMENT RESPONSIBILITY**

**5.1 Management Commitment**

The quality management system has been established by Lund Roberts Engineers Ltd to assure that installations and services offered by this company are in full compliance with customer expectations, industry and statutory regulations.

The management of Lund Roberts Ltd are dedicated and committed to reaching the quality objectives and goals specified in this manual.

This quality manual is the principal instrument by which senior management communicates the quality objectives and goals of the company including how the responsibilities for specific quality functions are delegated.

Top tier documents are available for download from the company website.

The management will conduct an annual formal management review in order to monitor the effectiveness of the quality management system. The management will take any reasonably required action to provide adequate resources in order to continually improve performance.

**5.2 Customer Focus**

Senior management will ensure that customer requirements are identified and the details utilised to ensure that these requirements are met and / or their expectations exceed.

**5.3 Quality Policy**

It is the primary concern of Lund Roberts Ltd to provide quality installations and services to its customers. The services offered by the company shall meet a well-defined need, use or purpose and meet or exceed customer's expectations.

Installations/Services provided by the company shall comply with all applicable and statutory standards and specifications.

Quality policy and objectives are reviewed by senior management as to their continued suitability.

Operating Procedures No. 1 & 2 refer.

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**5.4 Planning**

**5.4.1 Quality Objectives**

The administration of Lund Roberts Ltd is organised so that all personnel whose work affects the quality of our installations and services, operate to procedures that are designed to comply with the requirements of the quality policy.

Organisational objectives are defined in the quality policy statement. Personnel responsibilities are defined against group objectives in section 5.5.1 of this document. Specific objectives are set and monitored at management review meetings. Actions and dates are allocated against such objectives. Contract objectives are the responsibility of the individual project engineers. Contract objectives are job specific and vary with each client and contract type.

Customer feedback, NCR's, management review and appraisals are examples of the defined methods of measuring the above.

**5.4.2 Quality, Management System Planning**

The quality management system has been designed in accordance with the requirements of the BS EN ISO 9001:2008 standard and any changes to the system will be planned and implemented in a manner that will not affect compliance to the standard or the effectiveness of the QMS. The QMS is planned in order to meet the quality objectives of the organisation.

**5.5 Responsibility, Authority and Communication**

**5.5.1 Responsibility and authority**

The responsibilities, authority and interrelations of personnel who manage, perform and verify work affecting the quality and profitability of the documented quality system is defined in detail below.

**a) The Managing Director's Responsibilities**

- The company's policies and objectives
- The company's quality policies and objectives
- Contract review
- Liaising/negotiating with Suppliers of Materials to obtain the optimum benefit to the company in terms of pricing, deliveries and quality.
- Advising QA manager of proposed new suppliers.
- Training
- Client complaints
- Management review

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- Approval of the quality assurance documentation
- Act as quality manager in his absence

**b) The Directors' Responsibilities**

- Assist in the managing directors duties
- Project engineering duties (See overleaf)
- Pricing of company services
- Contract review
- Attend and participate in company board meetings
- Attend and participate in management review meetings
- Ensure all quality policies are implemented
- Personnel appraisals

**c) The Company Secretary's Responsibilities**

- Assist the managing director and directors in finance matters.
- Finance management of the company
- Invoice and account management
- Company insurance management
- Payroll management
- Oversee accounts and administration staff.

**d) The Quality Manager's Responsibilities**

To be the designated management representative with responsibility for the development and operation of the QMS in conjunction with the following:

- Advise the managing director on quality matters
- Management of company quality system
- Quality aspects of the contract reviews
- Verification of quality requirements
- The 'Quality Manual', procedures and instructions
- Overall responsibility for internal audits
- The assisting of external auditors in their annual review of quality systems
- Non-conformance procedures and management including corrective action plans.
- Client complaint procedures referred by company staff within the quality system.
- Quality documentation control
- Approved suppliers list and vendor rating
- The calibration and maintenance of all inspection, measuring and test equipment.
- The supervision of the testing and inspection of all company electrical plant in compliance with the 'Electricity at Work Regulations'
- Liaison with the company quality auditor.



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- Liaison with the company H&S officer.
- Monitor and maintain training.
- Advise top management on training requirements

**e) The Health & Safety Officer's Responsibilities**

- Advise the managing director on Health & Safety issues
- Management of company Health & Safety system
- Composition of the company H&S policies
- Monitoring Health & Safety training
- Monitoring the condition of all plant
- Apprentice appraisals.
- Apprentice training.

**f) The Quality Auditor's Responsibilities**

- To carry out internal audits
- To carry out site audits
- To assist with external auditors
- To compile corrective action plans based on the above.
- To assist in the maintenance of the QMS system

**g) The Project Engineers' Responsibilities**

- Project Management duties to include when required:
- Design & Development
- Estimation/quotation of internal designs
- Estimating /quotation of designs by external sources
- Operative briefings
- Site Surveys and measured works
- Day to day financial management of contract works
- Preparation and submission of payment applications for contract works
- Composition and submission of schedules of conditions
- Composition and submission of method Statements
- Composition and submission of Risk Assessments
- Composition and submission of technical reports
- Composition and submission of weekly management reports
- Composition of Health & Safety plans
- Client liaison
- Consultant liaison
- Operative liaison
- Subcontractor liaison
- Attending client project/design meetings
- Contract management
- Provision of Materials Lists / Services Requirements (to Procurement Manager)
- Attendance to site witness testing

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- Attendance to factory witness testing
- Enquiry and job file maintenance
- Health and safety on site
- Working drawings
- Record Drawings
- Composition and submission of O&M documents
- Ensuring all project work conforms with statutory regulations
- Ensuring all work meets with the requirement of the QMS
- Reporting to directors
- Implementing training procedures for operatives to meet trade and statutory obligations
- Monitoring plant location and condition.
- Obtaining Quotations for materials as required for the Project

**h) Admin Manager's Responsibilities**

- Monitoring and procurement of office supplies/stationery
- Overseeing and incorporating the responsibilities of the **Engineering Assistant & Document Controller (See Below)**

**i) Supervisors' and Electricians' Responsibilities  
(including Procurement from August 2016)**

- To carry out works as specified by the project engineer and client
- To install works to the highest standards required by the company and the trade organisations
- To be fully qualified in their work to the minimum standards set by their trade organisation and the company
- To be fully trained and to operate the quality system used by the company
- To control, inspect, and install all materials delivered to sites in the course of the project
- To process and use all the quality system documentation applicable to the site
- To supervise and help train apprentices on site
- To operate all health and safety at work procedures on site as set out by the company and/or the principal contractor as applicable
- To keep safe and maintain in good condition all plant, machinery and test equipment, whether the property of or on loan to the company.
- To assess requirements for the provision of plant and materials on site on a daily basis and place orders with the relevant Suppliers in accordance with the List of Approved Suppliers.
- To take delivery of plant and materials and check compatibility with original Orders/Advice Notes
- To regularly forward copies of Orders and Advice Notes to the **Admin Manager** for collation.
- Assist in client enquiries at all times.

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**j) Estimators' Responsibilities**

- Estimation/quotation of internal designs
- Estimating /quotation of designs by external sources

Note: The Estimators' responsibilities are limited to the production of the quotation only. The Project Engineers may also undertake Estimating as part of the Project Management system.

**k) Accounts Administrator's Responsibilities**

- To assist the Company Secretary in the following:
- Invoice and account management
- Payroll management
- Issuing Job Sheets and Maintaining the Job Number Register

**l) Engineering Assistant & Document Controller's Responsibilities**

- **General Project Responsibilities:**
  - To assist the Project Engineers in the production and control of project documentation including but not limited to the following:
  - Downloading and plotting drawings, producing internal and external drawing registers, maintaining and issuing to project teams.
  - Preparing Technical Submissions, Tech Sub registers and maintaining and issuing to project teams.
  - Preparing RFI registers and maintaining and issuing to project teams.
  - Assisting with the preparation of O&M documentation including Certificates, Record Information and Drawings.
  - Liaising with Clients, Sub-contractors & manufacturers when required.
  - General collation of information, hard copy filing and electronic filing relating to each project including receiving and collating Orders and Advice Notes
  - The completion of Pre-Qualification Documents.
  - Assisting in the preparation of Tender Submissions.
  - Typing letters, reports and memos as required by the project engineers.
  - Proficient use of Word, Excel, Outlook and PDF writer.
  - Monitor 'in-house' transportation/deliveries/collections (LRE Van & driver).
- **Quality Assurance and Health & Safety Responsibilities:**
  - Collation & filing of Method Statements, Risk Assessments, COSHH assessments, preparation and maintenance of registers and issuing to project teams.
  - Assisting with the maintenance of Site Health & Safety Files.
  - Assisting with the maintenance of Quality Assurance documentation.

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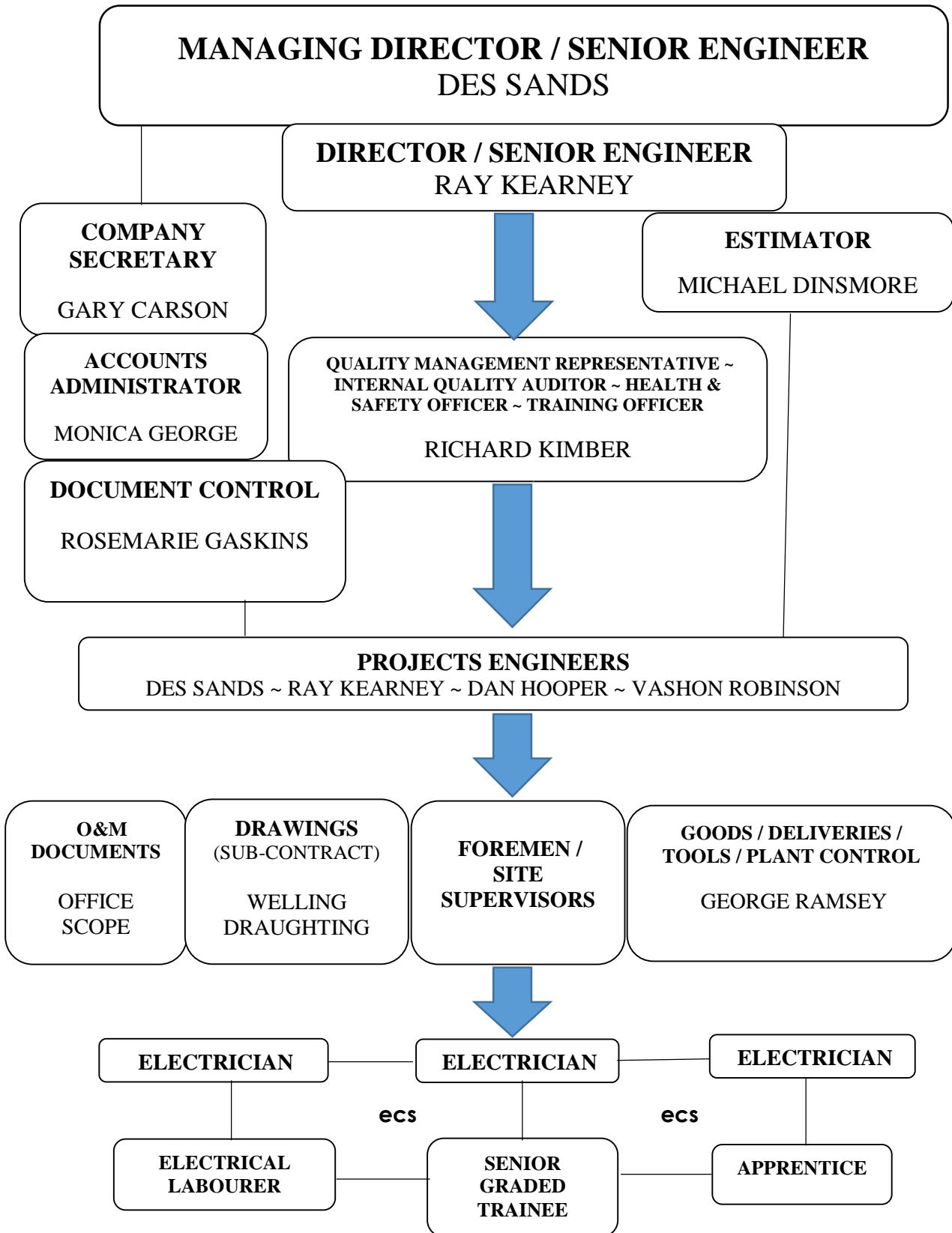
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- **Admin/Finance Responsibilities:**
- Preparing and Maintaining the Central Enquiry Register and Issuing Job Sheets and Maintaining the Job Number Register.
- Following up on placed orders, creating and maintaining procurement registers and issuing to project teams.
- Assisting Procurement Manager in checking Suppliers' Invoices against original Orders for correct delivery and pricing.

Note: The Engineers' Assistant/Document Controller may, if required, be based temporarily on site to carry out any of the above duties.



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**5.5.2 Management Representative**

The quality manager is appointed and will carry out duties as stated in section 5.5.1.

**5.5.3 Internal Communication**

Internal communication regarding the effectiveness of the quality system is executed as follows:

Management review meetings

Review minutes issued at the appropriate level

Site briefings

Internal memo system

Internal email system

Office bulletin board

Company Web Site

Training

**5.6 Management Review**

**5.6.1 General**

Senior management will review the status of the quality system on an annual basis to ensure that it continues to be appropriate and effective. Any improvements identified during these meetings will be assessed, actions agreed and personnel designated to implement these actions in the time allocated.

Records of these meetings will be published and retained by the quality manager.

Operating Procedure No. 1 refers

**5.6.2 Review Input**

An Agenda detailing the time and date of the meeting together with the subjects to be discussed will be circulated to all members of the management team prior to the meeting taking place.

Information presented in the review will include:

The results of internal audits

Customer complaints

Customer feedback

The status of previously agreed actions

The status of any preventive/corrective actions

Changes, which could affect the quality system

Recommendations for improvement.

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**5.6.3 Review Output**

Minutes of the review meetings will be published to all members of the management team. The agreed actions will be planned and implemented by the nominated personnel who will keep the quality manager apprised of any developments involving these tasks.

Operating Procedure No. 1 refers

**6.0 RESOURCE MANAGEMENT**

**6.1 Provision of Resources**

The company's documented quality system defines the resources necessary for the management, performance and verification activities throughout the organisation. The document assigns and identifies trained personnel to undertake these tasks.

The managing director ensures that the necessary resources are made available for the management, performance and improvement of the work and to meet the requirements of the company and the client.

The company shall employ and manage trained staff and operatives to attain the company and the client's needs through the contract review process.

**6.2 Human Resources**

**6.2.1 General**

It is the Policy of Lund Roberts Ltd to employ personnel on the basis that they are competent to perform their designated duties. The appropriate level of education, skills and experience will be used by management to determine the competence of personnel in carrying out the tasks designated to them.

**6.2.2 Competence, Awareness and Training**

All personnel must have the necessary experience and qualifications, to enable them to be employed in their specific role. Where required due to changes in job requirements and legislation, training needs are identified and the necessary steps taken.

This experience and the required qualifications are checked and recorded on their employment record/training file.

Operating Procedure No. 17 refers

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**6.3 Infrastructure**

The management are committed to provide appropriate facilities and equipment to meet their obligations as detailed in the company's policy statement. The buildings, workspace, facilities and communication equipment will be constantly monitored and updated where necessary to meet these obligations and to ensure that customer's expectations are met and/or exceeded.

**6.4 Work Environment**

Senior management will take all necessary action to ensure that the working environment complies with all statutory health and safety regulations and is compatible with good practices, including, noise, temperature, humidity, lighting and weather.

**7.0 PRODUCT REALIZATION**

**7.1 Planning of Product Realization**

All work is planned and undertaken in accordance with the Company's procedures plus any contractually relevant documents, drawings, specifications or test requirements. The installations are controlled at each stage, from receipt of the initial order to receipt by the client of the contracted items.

The Company ensures that installation, inspection and testing disciplines are carried out under controlled conditions.

The controlled conditions include documented operating procedures and work instructions (if appropriate). Operating procedures are provided to ensure consistency of performance with regard to these processes.

The company maintain all plant, tools and equipment that could affect the quality product.

Operating Procedures No. 7, 8 & 10 refer.



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**7.2 Customer-Related Process**

**7.2.1 Determination of Requirements related to Product**

Project Engineers are responsible for processing and reviewing specific customer requirements as well as all statutory and regulatory requirements including warranty, provisions, maintenance services, recycling or final disposals prior to submitting any quotes or tenders. All other special requirements determined by the company will be integrated into the system as the contract develops. Suitable procedures/flow charts are established and implemented to control these activities. Records are maintained to prove compliance.

**7.2.2 Review of Requirements related to Product**

Prior to submitting any quotes or tenders the proposed contract will be subject to review to ensure that the customers specified requirements can be satisfied. The review can embrace the technical features of the project, contract documentation, company labour resources, procurement issues and/or costs. When the customer provides no documentary statement of his requirements, the requirements shall be confirmed before acceptance thereby eliminating any ambiguities.

Suitable records of these activities, subsequent amendments and any other relevant correspondence relating to the contract will be retained as detailed in the procedure.

**7.2.3 Customer Communication**

All customer requests for installations/systems and technical support will be via the usual communication methods phone, fax, mail, e-mail or by direct contact. Customer feedback or complaints can be via the same methods or corresponded directly at project meetings. Customer Satisfaction questionnaires are issued as appropriate, management review client feedback. Suitable records of all these activities will be maintained.

Product information is available via the forthcoming company brochure and Website.

## **7.3 Design and Development**

### **7.3.1 Design and Development Planning**

The designated Estimator or Project Engineer is responsible for ensuring that design enquiries are subjected to a feasibility study.

All appropriate verification and validation stages of the design project shall be identified as part of the planning process. All designs are verified prior to client issue.

Software design programmes and their associated calculations are random checked with manual calculations.

### **7.3.2 Design and Development Inputs**

The designated Estimator or Project Engineer is responsible for ensuring that upon completion of the technical feasibility study the relevant design specification is produced and where required submitted for approval.

This design specification produced will be utilised as the design input for the project.

Core elements of the study may include:

- Client briefing
- Survey
- Review of previous and similar designs
- Product performance specifications
- Benchmark specifications
- Statutory requirements
- Regulations
- Specific client requests

### **7.3.3 Design and Development Outputs**

The Estimator or Project Engineer will formulate a design package containing drawings, schedules, specifications, circuit diagrams, calculations and all other relevant design information. The package shall as far as reasonably possible meet the company's interpretation of the design criteria as detailed in the input specification.

This package will enable acceptance/approval by senior management and/or where appropriate the customer, as well as containing sufficient information to enable the purchasing of all necessary equipment and resources to fulfil the contract.

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**7.3.4 Design and Development Review**

The Estimator or Project Engineers carry out reviews of the design and development process. Details of the review and any associated corrective actions are recorded and records maintained. An example of recording the review being a signed off drawing or specification.

**7.3.5 Design & Development Verification**

Verification activities relating to all design projects are planned, implemented and include confirmation that the design and development output meets the interpreted requirements of the inputs. The results of the verification checks will be documented and maintained. An example of verification being a signed off drawing or specification.

**7.3.6 Design and Development Validation**

Validation of the Design Process/Installation will take place to meet all Customer and Statutory requirements specified in the design and development Input. An example of validation being a signed off drawing or specification.

**7.3.7 Control of Design and Development Changes**

Any changes proposed to the design will be reviewed, verified and approved prior to implementation. The effect that these changes may have on constituent parts of the installation will be an integral part of this review process. Details of all changes made in the design and development process will be recorded. Example drawing revisions, revision notes and levels. (Approval, Construction, Record)

**7.4 PURCHASING**

**7.4.1 Purchasing Process**

The purchasing process is controlled by the project engineers to meet the specific requirements of each particular project. Required items are identified by the Site Supervisors/Project Electricians who will then purchase the said goods or Services from approved suppliers as detailed in procedure.

Suppliers of goods and services are selected on their ability to meet the company's requirements giving due consideration to the quality, statutory obligations, cost and timescales. A list of approved suppliers is maintained.

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**7.4.2 Purchasing Information**

The purchase order will detail information regarding purchased products and suppliers. The Site Supervisors/Project Electricians will complete and issue the purchase order.

The purchase order will also detail any appropriate requirements for product approval, personnel qualifications and QMS requirements.

**7.4.3 Verification of Purchased Product**

All parts will be purchased from approved sources and will be subjected to verification checks on arrival at source. The verification checks being executed to ensure the consignment meets the specified purchase requirement.

Factory visits are planned by the Project Engineers and will detail functional test sheets and tests prior to acceptance of goods. Functional test sheets may be produced internally as required or by external sources such as client representatives.

Operating Procedure No. 5 refers.

**7.5 Production and Service Provision**

**7.5.1 Control of Production and Service Provision**

Lund Roberts has established, documented and maintains operating procedures to help guide and control the activities of personnel whilst engaged in their daily activities. Essential information detailed in the operating procedures is compiled by the management team; those relating to work instructions are compiled by the relevant project engineers based on industry norms plus legislative and British / European standards.

In order to ensure accuracy of information the quality section filing system contains a number of relevant and current British and European standards. The project engineer is responsible for checking these documents to ensure that they are still current before use.

Dependent on the nature of the contract these instructions will contain details of suitable equipment together with any monitoring and measuring activities devices required.

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The company maintains measuring and test equipment being suitably rated and calibrated for duty. Specialist devices can be hired from approved suppliers if required.

All electrical plant is portable appliance tested on an annual basis.

All plant is allocated a unique asset/register number and all plant is traced on a plant location register.

**7.5.2 Validation of Processes for Production and Service Provision**

Lund Roberts do not undertake works that involve special processes whereby monitoring or measurement of the installation cannot be executed after project completion.

In the event an installation or component becomes deficient post handover operating procedure No. 8 will refer.

**7.5.3 Identification and Traceability**

The installation and quality of basic materials and processes is often of significant importance for effective use and safety of an item.

The company therefore ensures the product is identified and history maintained throughout the system. This enables easy identification, segregation and remedial action in the event of defects being discovered during installation and use.

To ensure traceability throughout the supply chain, consignment documents, invoices, calibration certificates, certificates of conformity covering products or services provided contain the following information where applicable:

- Consignee's name and address
- Consignor's name and address
- Reference No. and date of document
- Suppliers Order No
- Company's Order No
- Unique Job No
- Description of supplies and quantity
- Specifications/Drawings and issue status
- Identification marks or serial numbers
- Non-compliance No

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The company ensures that on every order there is complete traceability of all work done, from enquiry stage through installation to commissioning (delivery). All information and documents are held in order file and kept for a minimum of 5 years after completion of the order.

Operating Procedure No's 3, 5, 6, 7, 8, 9, 10, 11, 12, 14 & 18 refers.

#### **7.5.4 Customer Property**

All work and items issued/received from the client in aid of an order are delivered directly to the site or held by their supplier. All such goods are protected and controlled as far as possible, and any loss or damage identified is reported to the client at the earliest opportunity.

Intellectual property of the client including personal data will be respected for privacy and all drawings / schematics will be clearly identified and copies stored in the project file.

Procedure No. 6 refers

#### **7.5.5 Preservation of Product**

All items are stored and installed in a suitable environment to ensure they are preserved to prevent them from premature ageing, failure or damage. All items are uniquely numbered as to their enquiry/job number.

Operating Procedure No. 14 refers

### **7.6 Control of Monitoring and Measuring Devices**

The quality representative is responsible for establishing and maintaining effective systems for the calibration and control of measuring and test equipment. The QR shall ensure that all calibration is traceable to National Standards. All test equipment is suitably protected against adjustment by means of the calibration company's seal. All test equipment is suitably stored and protected against damage.

The QR is also responsible for ensuring that all test software is maintained and controlled.

Operating Procedure No. 10 refers.

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**8.0 MEASUREMENT, ANALYSIS AND IMPROVEMENT**

**8.1 General**

Lund Roberts have established, documented and implemented a quality system to monitor and analyse the performance of the company in its efforts to deliver services and planned installations to its customers in a timely and accurate manner. This quality management system is subjected to a planned programme of audits, the results of which are reviewed by the management team. This process ensures that operations not only conform to the documented requirements but also identify opportunities to improve the effectiveness of the system.

**8.2 Monitoring and Measuring**

**8.2.1 Customer Satisfaction**

As a means of measuring customer satisfaction with performance, customer opinions are positively sought and recorded during project meetings. In addition all customer complaints/grievances are recorded and are subject to review by the management team. Corrective and preventive actions are taken to resolve the problems.

In addition to the above the company issues a quality questionnaire to clients on a random basis. The questionnaire also details a suggestion box for any additional feedback from clients. The results are presented in graph format at management reviews.

The forthcoming company web site will also detail a section pertinent to client comment/submissions.

The results of all such activities are subject to evaluation and review during the Quality System Management Review meetings.

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**8.2.2 Internal Audit**

In order to ensure that the defined quality management system is being operated correctly and effectively, the company undertakes planned and documented internal audits based on the implementation and operation of the system.

The schedule for these internal audits is developed by the quality manager who will ensure that: the Audits are carried out in the appropriate manner by trained/approved personnel who have no responsibility for the areas being audited

The results of all audits will be recorded on the appropriate documents. These documents will provide objective evidence of conformance to the relevant requirements and also specify any non-conformity found. Non-conformities will have corrective action defined and completion dates agreed by the appropriate personnel.

The quality manager will review the results of all audits and subsequent corrective actions to ensure that the quality management system remains effective in operation thus enabling the results to be used by management in the identification of opportunities for improvement of the system.

Operating Procedure No. 16 refers.

**8.2.3 Monitoring and Measurement of Processes**

Flowcharts have been developed to identify key processes within the company operation that are monitored to ensure that planned targets are achieved. The results of all such activities are continually measured against plan and any variance will cause corrective actions to be determined and implemented.

**8.2.4 Monitoring and measuring of Product**

All Items and assemblies ordered shall be verified at source where necessary, or upon receipt. All items received are identified and verified upon receipt in accordance with the requirements of the contract and the operating procedures. Non- conforming items are immediately reported to the company for resolution with the supplier/client.

Non-conforming items discovered at any stage will be reported as deviations on the non-conformance report, in accordance with non-conforming procedure.



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All inspection and test is planned and recorded, with all inspection and test results retained with the installation documents and job File. In the event the client requires an O&M manual, one is provided with all relevant supporting documentation.

The project engineer/director responsible for the contract will also be responsible for hand-over to the client.

Operating Procedure No. 9 refers.

### **8.3 Control of Nonconforming Product**

Any suspect or defective items, methods, procedures, installations, commissioning or client complaints are reported on a non-conforming report. The non-conformance is reported by the person identifying the problem, the quality manager raises and monitors non-conforming reports.

Once non-conforming items have been noticed they are identified by location, associated documents, labels and segregated, where possible to prevent inadvertent use or progress within the system.

Operating Procedure No. 12 refers.

### **8.4 Analysis of Data**

Lund Roberts have declared a policy to analyse relevant data to ensure that the quality management system remains suitable to the company business and effective in operation. This data will be collected from sources such as customer feedback, commissioning, and installation reports. Customer feedback will be analysed and reviewed at the senior management review meetings.

### **8.5 Improvement**

#### **8.5.1 Continual Improvement**

Lund Roberts have established a system to cause continual improvement of the quality management. This continual improvement process utilizes the company quality policy, objectives, customer feedback, corrective and preventive action, internal audit results and senior management review meetings.

Additional audits from external organisations such as NQA, the NICEIC and the ECA all contribute to the continual improvement of the organisations management system.

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**8.5.2 Corrective Action**

It is the Company's policy to apply within the quality management systems corrective actions aimed at preventing defects occurring. Non-conformance reports are used to provide a record of the non-conformity, so that it can be used to investigate the cause, analyse the problem, define and initiate the corrective action needed to prevent recurrence.

All corrective actions must be checked for completeness before the non-conformance report can be closed and signed off by the Quality representative.

All personnel are encouraged to identify and report any problems that may arise within the Company's operations and documented quality system. Although these are not strictly non-conformance's they shall be reported on the non-conformance report and processed accordingly.

**8.5.3 Preventive Action**

The Company's quality management system is established and maintained in order to enable project engineers while planning projects, to control the introduction of new products/processes. This process includes identification of potential non-conformances in order to prevent their occurrence

Action to prevent a problem from arising shall also be identified by review of the various sources of information, such as design processes, internal and external audit results, detailed method statements, schedules of conditions, snag sheets, quality records, non-conformities, customer complaints etc.

These procedures are reviewed and approved by senior management prior to implementation and any subsequent changes identified to cause improvement to the system will also be reviewed and approved by Senior Management. Suitable records of the introduction and amendment of all documented procedures will be maintained.