



Lewis Civil Engineering Limited & K'Nex Pipelines and Cables

QUALITY ASSURANCE, HEALTH, SAFETY & ENVIRONMENTAL MANUAL

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Document Title	QUALITY ASSURANCE, HEALTH, SAFETY AND ENVIRONMENTAL MANUAL
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RECORD OF ISSUES/REVISIONS

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2. Introduction

Lewis Civil Engineering Limited is a civil engineering firm specialising in civil engineering, structures, pipe laying and pipe repair for the water industry.

The company Head Office is located at Mwyndy Cross Industries, Cardiff Road, Rhondda Cynon Taff and currently employs approximately 75 people.

The main processes are laying pipes.

Throughout 2002, Lewis Civil Engineering Limited worked extensively with K'Nex Pipelines and Cables, which is a specialist pipe layer and experts in the field of trench-less technology, which is less damaging to the environment than the traditional open cut methods.

In 2003 the two companies were fully integrated and the K'Nex processes were incorporated into the existing Lewis system. Hereafter, any reference to Lewis Civil Engineering also applies to K'Nex (unless otherwise specified).

Lewis Civil Engineering Limited is committed to protecting the environment, and to this end has created and implemented an environmental management system which is described in this Integrated Quality and Environmental Management Manual.

Lewis Civil Engineering was registered to the quality management Standard ISO 9002: 1994 in 1999 (K'Nex Pipelines and Cables was registered to ISO9001: 1994 in 2000) and the system was updated to comply with ISO 9001: 2000 in 2003. The company was registered to ISO 14001: 1996 in 2002, and ISO14001:2004 in 2005.

A complete review of the system was undertaken in April 2008 to include the new requirements of BS OHSAS18001:2007.

Where possible the requirements of ISO 9001, ISO 14001 and BS OHSAS18001 have been integrated into a common management system.

3. Policies

Quality and Environmental Policies for Lewis Civil Engineering Limited and K'Nex Pipelines and Cables are shown below.

Health & Safety policies are shown in the Company Health & Safety Manual, Safe Systems of Work, Generic Risk Assessments & Toolbox Talk Manual.

Lewis Civil Engineering Limited

QUALITY POLICY

Lewis Civil Engineering Limited is a civil engineering firm specialising in civil engineering, structures, pipe laying and pipe repair for the water industry.

The management and all who work at Lewis Civil Engineering Limited are committed to providing the highest possible level of service in satisfying the requirements of our customers.

In order to ensure that we achieve excellence in all our activities we have implemented a formal quality management system, which satisfies the requirements of BS EN ISO 9001: 2008.

The quality management system ensures that:

- Our customers' needs are fully understood.
- Appropriate resources are provided in terms of facilities and relevant skills to fulfil customers' needs.
- The company is committed to a process of continual quality improvement, and sets quality improvement objectives which are re-assessed regularly.
- Progress towards the quality objectives is monitored.

The quality policy and quality objectives adopted by management have been made known to all employees.

This will be the foundation on which we will build continuing improvements in our performance.

The quality policy, quality objectives and the quality management system are reviewed and updated regularly to take account of changing circumstances and customer requirements.

Date:

General Manager

Lewis Civil Engineering Limited

ENVIRONMENTAL POLICY

Lewis Civil Engineering Limited is a civil engineering firm specialising in civil engineering, structures, pipe laying and pipe repair for the water industry.

The management and all who work at Lewis Civil Engineering Limited are committed to the care of the environment and the prevention of pollution.

The company ensures that all its activities are carried out in conformance with any applicable legal requirements. The company seeks to minimise waste arisings, promote recycling, reduce energy consumption, reduce harmful emissions and, where possible, to work with suppliers who themselves have sound environmental policies.

An essential feature of the environmental management system is a commitment to improving environmental performance. This is achieved by setting annual environmental improvement objectives and targets which are regularly monitored and reviewed. The objectives and targets are publicised throughout the company and all staff are committed to their achievement.

In order to ensure the achievement of the above commitments, the company has implemented an environmental management system which satisfies the requirements of BS EN ISO 14001: 2004.

This Policy and the obligations and responsibilities required by the environmental management system have been communicated to all employees and persons working on behalf of the organisation. The Policy is available to the public on request.

Date:

General Manager:

K'Nex Pipelines and Cables

QUALITY POLICY

K'Nex Pipelines and Cables are specialists in the design and installation of underground services for cable networks, ducting, pipelines and mains for sewers, gas, electricity (including construction of jointing or inspection chambers or manholes) and trenchless technology.

The management and all who work at K'Nex are committed to providing the highest possible level of service in satisfying the requirements of our customers.

In order to ensure that we achieve excellence in all our activities we have implemented a formal quality management system, which satisfies the requirements of BS EN ISO 9001: 2008.

The company's objectives which underpin the quality management system are:

- ◆ Our customers' needs shall be fully understood.
- ◆ Appropriate resources are provided in terms of facilities and relevant skills to fulfil customers' needs.
- ◆ The company is committed to a process of continual quality improvement, and sets quality improvement objectives which are re-assessed regularly.
- ◆ Progress towards the quality objectives is monitored.

The quality policy and quality objectives adopted by management have been made known to all employees.

This will be the foundation on which we will build continuing improvements in our performance.

The quality policy and management system are reviewed and updated regularly to take account of changing circumstances and customer requirements.

Date:

Director of K'Nex:

K'Nex Pipelines and Cables

ENVIRONMENTAL POLICY

K'Nex Pipelines and Cables are specialists in the design and installation of underground services for cable networks, ducting, pipelines and mains for sewers, gas, electricity (including construction of jointing or inspection chambers or manholes) and trenchless technology.

The management and all who work at K'Nex Pipelines and Cables are committed to the care of the environment and the prevention of pollution.

The company ensures that all its activities are carried out in conformance with any applicable legal requirements. The company seeks to minimise waste arisings, promote recycling, reduce energy consumption, reduce harmful emissions and, where possible, to work with suppliers who themselves have sound environmental policies.

K'Nex favours pipe-bursting techniques over traditional open-cut works, wherever possible, in order to minimise environmental impact.

An essential feature of the environmental management system is a commitment to improving environmental performance. This is achieved by setting annual environmental improvement objectives and targets which are regularly monitored and reviewed. The objectives and targets are publicised throughout the company and all staff are committed to their achievement.

In order to ensure the achievement of the above commitments, the company has implemented an environmental management system which satisfies the requirements of BS EN ISO 14001: 2004.

This Policy and the obligations and responsibilities required by the environmental management system have been communicated to all employees and persons working on behalf of the organisation. The Policy is available to the public on request.

Date:

Director of K'Nex:

4. The Management System

4.1 The Integrated Management System

The integrated management system brings together the requirements of the three Standards: ISO9001:2008 (quality), ISO14001:2004 (environment) and BS OHSAS18001:2007 (health & safety).

Appendix 2 contains tables which associate the paragraphs of this Manual and other associated documents with the individual clauses of the three Standards, and shows that the requirements of each Standard have been addressed.

4.2 Scope of the Management System

4.2.1 Lewis Civil Engineering Ltd

Civil engineering contracting, pipe work laying, repair and associated structures, primarily for the water industry.

4.2.2 K'Nex

Installation of and solutions for trenchless underground services for cable networks, ducting pipelines and mains for water, sewers, gas, electricity including construction of jointing or inspection chambers or manholes.

The management system applies both to the company's employees and others who work on its behalf.

The Integrated Management System also defines how the company exercises control of outsourced processes.

4.2.3 General

All clauses of the Standards are operative.

4.3 Structure of the Management System

4.3.1 Quality, Environmental and Health & Safety Documentation (Clause 4.2.1 of ISO9001:2008 and Clause 4.1 of ISO14001:2004 and BS OHSAS18001:2007)

Management has established and maintains a documented Quality and Environmental System which includes the following:

- [The Quality Policy \(Lewis Civil Engineering\)](#)

- [The Quality Policy \(K'Nex\)](#)
- [The Environmental Policy \(Lewis Civil Engineering\)](#)
- [The Environmental Policy \(K'Nex\)](#)
- The Health & Safety Policy (Lewis Civil Engineering)
- The Health & Safety Policy (K'Nex)
- Risk Assessments (generic and site specific)
- Register of Environmental Aspects
- Register of Environmental and Health & Safety Legislation
- The Improvement Objectives
- The Quality, Health, Safety and Environmental Manual
- The Quality Assurance, Health, Safety and Environmental Procedures
- The Quality, Health, Safety and Environmental Records
- Site documentation

4.3.2 The Manual

This Manual describes the structure and scope of the Integrated Management System and shows how the activities of the company meet the requirements of the Standards.

The Manual is supported by Procedures which have been written which cover every aspect of the company's operations which affect the quality of service to the customer, care for the environment and health & safety.

List of Procedures

- | | |
|----|--|
| 3 | Contract Review |
| 4 | Design Control |
| 5 | Document and Data Control |
| 6 | Purchasing |
| 7 | Hazard Identification, Risk Assessment and Control |
| 8 | Environmental Aspects & Evaluation |
| 9 | Legislation |
| 10 | Control of Client Supplied Product |
| 11 | Identification and Traceability |

12	Control of Site Work
13	Inspection and Testing
14	Control of Inspection, Measuring and Test Equipment
15	Inspection and Test Status
16	Control of Nonconformities and Incidents
17	Emergencies
18	Improvements, Objectives and Targets
19	Handling, Storage, Packaging, Preservation & Delivery
20	Control of Records
21	Internal Audits
22	Training, Awareness and Competency
23	Communication
24	Management Review Meetings
25	Waste handling and segregation
26	Disposal of Controlled Wastes
21	Hazardous wastes

The paragraphs of this Manual make reference to the related Procedure(s).

The Appendix contains a table which cross-refers each clause of the Standard(s) either to the relevant paragraph of this Manual or the relevant Procedure.

4.3.3 Control of Documents

The 'Document and Data Control' Procedure sets out procedures for the control of all documents which support the quality system. Procedures are written to control:

- The authorisation of controlled documents.
- How changes in documentation are made, whether held on paper or electronically, including the numbering and issue of revisions and identification of revision status.
- How documents are made available where necessary and are removed when obsolete.
- How documents are kept under review.
- Control of data held on computers
- Back up procedures are included in the 'Control of Records' Procedure.
- A diagram of document responsibilities indicates, for each document, who raises it, where it is issued for action and where filed.

- How external Standards, codes of practice and technical information are updated.
- The receipt of incoming mail.

4.3.4 Control of Records

Quality, Health, Safety and Environmental records are defined in the diagram of document responsibilities contained in 'Document and Data Control' Procedure

The 'Control of Records' Procedure ensures that:

- Records are legible, properly identified, filed and stored, and can be made available when required, and are eventually destroyed in a controlled manner.
- Retention times are defined.
- Computer records are regularly backed-up and back-up files are stored securely.

5. Management Responsibility

5.1 Management Commitment

The General Manager of Lewis Civil Engineering and Directors of K'nex demonstrate their responsibility for the Management System by:

- Signing the Quality Policy, which includes a commitment to understand and fulfil customers' needs
- Signing the Environmental Policy, which includes a commitment to the prevention of pollution.
- Signing the Health & Safety Policy which includes a commitment to the care and protection of staff and others affected by the company's activities.
- Setting quality, environmental and health & safety objectives, including the actions necessary to effect continual improvement of the management system.
- Ensuring the company complies with the relevant statutory and regulatory requirements relating both to products and activities.
- Being directly involved in the day to day work and in chairing the Management Review Meetings.
- Ensuring that the necessary resources are made available.

5.2 Customer Focus

The highest standards of quality and customer service are achieved by a directly employed, experienced workforce and supported by an extensive modern plant fleet. This expertise has also enabled the company to enjoy an unrivalled health and safety record. It is the company's ethos to work closely with its clients and their representatives to achieve cost effective and innovative solutions to a wide range of engineering problems.

Lewis Civil Engineering and K'nex works in Partnership with top tier contractors. The Partnering approach was devised to establish a working arrangement which would avoid the historical adversarial relationship between client, designer and contractor. Partnering involves these parties working together as one team from the concept stage with the common objective of delivering the scheme on time, within budget and to the highest possible standards in order to meet customer requirements.

5.3 Management Policies

5.3.1 Commitment

Lewis Civil Engineering's commitment to quality, the environment and health and safety and the principles of the Standards is set out in the Policies. They are signed by the General Manager (Lewis) and Managing Director (K'Nex), displayed on the notice board and have been communicated to all employees.

5.3.2 Support for the Policies

The Policies are supported by specific objectives and targets which are reviewed annually.

5.4 Planning

5.4.1 Environmental Aspects

The organisation has examined its activities and services to determine which of them have an impact on the environment, and where possible the impact has been measured. The results of the analysis are presented in a *Register of Environmental Aspects*.

The relative significance of the various aspects is a factor which influences the selection of items for inclusion in environmental improvement and action plans. Guidance on how to rate the significance of aspects is given in the 'Environmental Aspects and Evaluation' Procedure.

The information on environmental aspects is reviewed and updated as part of the internal audit programme.

5.4.2 Hazard Identification, Risk Assessment and Risk Control

Lewis and K'nex has examined its routine and non-routine activities to determine which of them have health & safety implications. The results are presented in risk assessments. Where necessary, method statements and / or safe systems of have been written specifically (or are generated for site specific activities), or have been included in Procedures and Work Instructions to give guidance to employees on how to carry out activities in order to minimise risk.

When determining hazards, the risk assessment takes into account the effect of possible human behaviour and capability.

The relative significance of the various risks is a factor that influences the selection of items for inclusion in safety improvement action plans. Guidance on how to prepare risk assessments is given in the 'Hazard Identification, Risk Assessment and Control' Procedure.

5.4.3 Legal and Other Requirements

Lewis and K'nex has determined which environmental and health & safety legislation and regulations and any relevant codes of practice apply to its products and activities. The information on legal and other requirements is presented in a *Register of Health, Safety & Environmental Legislation*.

The 'Legislation' Procedure contains instructions on how to keep the Register up-to-date.

If changes to legislation require the organisation to make changes in the way it operates, the relevant Procedures or Work Instructions/Method Statements will be revised or new ones will be written.

5.4.4 Objectives

Setting and reviewing quality, environmental and health & safety objectives is one of the functions of the Management Review Meeting, as set out in the 'Management Review' Procedure. Objectives are also referenced in the 'Analysis of Data, Improvements, Objectives and Targets' Procedure and have to be consistent with the relevant Policy.

Annually, Lewis and K'nex sets improvement objectives and targets based on the information contained in the Register of Environmental Aspects, Risk Assessment, the Register of Environmental Legislation and the outcome of the analysis of performance (see paragraph 9.5) and selects which items shall be adopted as objectives and targets for the coming year.

In setting these objectives and targets, the organisation is mindful of:

- The Policies.
- The relative importance of the environmental aspects and hazards/risks.
- Relevant legislation, etc.
- Latest industry techniques and trends
- The view of any interested parties, e.g. customers / members of the public.
- The need to prevent pollution in general.

5.4.5 Management Programmes

The General Manager is responsible for setting up and monitoring management action programmes to ensure the achievement of the objectives and targets.

5.5 Resources, Roles, Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

Management has created an organisation which defines the management functions within the company and their interrelationships. The Organisation Chart is set out in the [Appendix](#) of this Manual.

The key management responsibilities as they relate to the Management System are set out in the following paragraphs.

5.5.2 Management Responsibilities

- **Overall Responsibilities**

Every employee is generally responsible for the quality of work which he/she undertakes.

- **General Manager**

The General Manager sets the overall quality, safety and environmental policies and ensures that the necessary resources are available. He regularly reviews performance by chairing the Management Review Meeting, and by direct supervision of his management team.

He is responsible for authorising capital expenditure and has overall responsibility for estimating, submitting tenders, reviewing contracts and allocating projects to the Site Agents.

- **Management Representative**

The Managing Director has designated the Safety Officer as the management representative who has the responsibility for ensuring that the requirements of the standards are implemented and maintained including the promotion of customer requirements. The identity of management representative for Health and Safety has been made know to all staff.

- **Integrated Systems Manager**

The Safety Officer has been designated the Integrated Systems Manager as the management representative who has responsibility for ensuring that the requirements of the Standards are implemented and maintained.

Specifically, the Integrated Systems Manager is involved in such areas as:

- The control of Quality, Health, Safety and Environmental Procedures and other management system documents.

- Reviewing nonconformities and ensuring that short-term corrective action and long-term preventive action is taken.
- Arranging internal audits, using trained auditors, and ensuring that audit findings are followed up.
- Arranging quality awareness training, and particularly awareness of customers' requirements.
- Arranging environmental awareness training, and particularly the need to prevent pollution.
- Arranging health and safety awareness training.
- Care of quality, health, safety and environmental records.
- Reporting on the performance of the Quality, Health, Safety and Environmental System to the Management Review Meeting, including the need for improvement.

- **Office Manager**

The Office Manager is responsible for all commercial matters, purchasing, accounting and personnel matters. He ensures that all new employees have the qualifications required to do the job and that induction, quality, safety and environmental awareness training is given.

- **Estimator**

The Estimator is responsible for responding to tenders and the production of 'target cost' plans, which involves working closely with the customer to understand their requirements.

The Estimator is also responsible for evaluating Subcontractors according to set criteria.

- **Director of K'Nex**

The Director of K'nex Pipelines and Cables is responsible for processing tenders, overseeing projects and invoicing for K'Nex contracts. The Director of K'Nex is also responsible for delivering presentations to potential clients regarding the environmental benefits of pipe-bursting technology.

- **Safety Officer**

The Safety Officer is the designated Integrated Systems Manager. He is responsible for providing safety guidance to the project teams and for evaluating the safety performance of different project teams. Where necessary, the Safety Officer shall ensure that appropriate safety training is identified and provided.

He ensures that all induction, quality, safety and environmental awareness training is given.

- **Project Managers, Site Agents and Site Managers**

For the purposes of Quality Assurance and Environmental Management, Project Managers, Site Agents and Site Managers have a similar role and are responsible for executing the contract in accordance with designs, specifications and instructions received from the client.

- **Engineer**

The Engineer assists Site Agents by setting out work and assisting in all other duties carried out by the Site Agents, as detailed above.

- **Site Coordinators**

Site Coordinators are responsible for specific jobs and to ensure their gangs carry out the designated work.

- **Machine Operators**

Machine Operators hold the necessary CPCS licences to operate JCBs, HGVs and other plant items.

- **Pipe Layers**

Pipe Layers are men experienced in repairing, laying, jointing and checking pipework.

- **Trade Assistants**

Trade Assistants are labourers who have made such progress as enables them to assist with more complex work under the guidance of an experienced supervisor.

- **General Operatives**

These are labourers, often under training for other duties.

- **Training Coordinator / PA**

The Training Coordinator is responsible for arranging new and ongoing training required (as instructed by Site Managers and Project Managers). She is responsible for maintaining the Skills Matrix, filing of certificates and ensuring that training records are maintained.

The Training Coordinator is also responsible for ensuring that refresher training is completed.

- **Administration / Reception Staff**

The Administration staff assist the Office Manager. They assist the Integrated Systems Manager in the administration of controlled documents, the filing of quality documents, and by taking the minutes of the Management Review Meetings.

- **Accountant**

The Accountant is responsible for monitoring all financial aspects of the business, including collecting income from customers, payment to suppliers, control of payroll and compliance to HM Revenue & Customs legislation.

The Accountant is the main point of contact for all financial audits.

- **Works Manager**

The Works Manager controls all labour and plant resources.

- **Cost Manager**

The Cost Manager is responsible for checking and signing off invoices against orders, placing subcontract orders and the production of cost reports against invoices. He is also responsible for all plant hire orders.

The Cost Manager is the first point of contact for all cost customer audits.

- **Personal Assistant**

The Personal Assistant assists the Project Manager and the General Manager.

5.5.3 Communication, Consultation and Competence

All Managers are responsible for:

- Ensuring that their staff are familiar with the Quality, Health, Safety and Environmental Procedures and that they are briefed about improvement objectives and achievements
- Ensuring that their staff are adequately qualified, experienced and trained in their relevant technical disciplines in order to be able to perform their duties satisfactorily.
- The quality of work carried out by staff in their departments.
- Ensuring that approved procedures are adopted within their departments, and that any necessary complementary work instructions are written, implemented and updated.
- Liaison with other functions in the company in the achievement of quality performance.
- Communication and consulting with subcontractors and other visitors to the workplace with regard to health and safety procedures, maintaining good environmental performance and observing relevant procedures.

- observing relevant procedures.

The Directors arrange consultation with employees, particularly with regard to:

- Introduction of any new measures that may affect the health & safety of employees, impact on the environment or work methodologies.
- Information regarding health & safety or environmental legislation.
- Their participation in hazard identification, accident investigation and the development of health and safety policies.
- The Safety Officer is the company's point of contact for enquiries and complaints from external sources relating to the environmental and safety performance, whether from government agencies or the general public. He shall arrange for such matters to be properly investigated and ensure that replies are sent.
- The company has decided not to make information on its significant aspects generally available to the public. The 'Communications' Procedure refers.

5.6 Management Review

Management Review Meetings are held every six months in order to ensure the continuing suitability, adequacy and effectiveness of the integrated Quality, Health, Safety & Environmental Management System and to ensure that the all related documentation and improvement objectives are still relevant to the company's objectives and the needs of customers and changing legislation.

Procedure 24 sets out the agenda, frequency and conduct of Management Review Meetings.

6. Resource Management

6.1 Provision of Resources

As stated in [paragraph 4.1](#), the Managers are responsible for ensuring that the resources are available, in terms of facilities and skills, to implement the quality management system and meet the needs of customers.

6.2 Human Resources

6.2.1 General

[Paragraph 5.5.3](#) has already noted the responsibility of all managers to ensure that their staff are competent in terms of qualifications, skills and experience to carry out their assigned tasks.

6.2.2 Competence, Awareness and Training

The 'Training Awareness and Competency' Procedure sets down the arrangements concerning qualifications, competence and training including:

- All staff and new recruits have quality, health, safety and environmental awareness training including the improvement objectives.
- Reviews of competency.
- All staff are trained in the specific responsibilities of their jobs, in emergency procedures and in the potential consequences of departing from the specific procedures. Where a job has the potential to affect product requirements, cause significant environmental impacts or is associated with significant health & safety risks, care is taken that job holders are competent to do the job.
- A review of training needs is included in the agenda of the Management Review Meeting.
- Training defined is provided and its effectiveness is evaluated.
- A training record is kept for each employee showing education, qualifications etc and training planned and given.
- Personnel working on behalf of the organisation (e.g. subcontractors) are made aware of the quality, health, safety and environmental requirements within which they are required to operate.

6.3 Infrastructure

The General Manager ensures the facilities, equipment, information systems and supporting services are suitable for the work.

6.4 Work Environment

The Company's Health & Safety Manual, Safe Systems of Work, Generic Risk Assessments & Toolbox Talk Manual provides all Managers and Site Agents with guidance on the provision of appropriate working conditions.

7. Product Realisation

7.1 Planning of Product Realisation

Planning is an essential feature of the Management System and is carried out primarily through the production and distribution of Risk Assessments and Method Statements, scheduling, programming and the observance of the relevant Procedures.

The nature of the construction industry means that each contract has to be evaluated individually, rather than following set rules. Procedures 3, 4, and 12 give guidance on this subject.

7.2 Customer-Related Processes

7.2.1 Identification of Product Requirements

The 'Contract Review' Procedure contains instructions on how to control the following functions:

- Enquiries, estimating, quotations.
- The receipt of sales orders.
- Ensuring that the customer's requirements including delivery and any post-delivery requirements, are adequately defined and documented.
- Ensuring that the requirements as specified match the intended outcome of the service.
- Establishing any regulatory or legal requirements relating to the service, e.g. Notification requirements to the Environment Agency.

7.2.2 Review of Product Requirements

Procedure 3 also contains instructions relating to:

- Checking orders against quotations and resolving any differences.
- Ensuring that the company can satisfy the customer's requirements in terms of construction quality and deadlines.
- Order acknowledgement or confirmation, especially where the customer has not provided a written order.
- Acceptance of changes to order.

7.2.3 Customer Communication

Communication with the customer is the responsibility of the Estimator, as described in Procedure 3 and Project Managers / Site Agents.

Procedure 16 sets out procedures for handling customer and third party complaints.

7.3 Design and Development

Procedure 4 sets out how the design and development process is controlled by:

- The scheduling of design and development work, allocation of responsibility, and preparation of a project plan
- The design and development input is fully specified, including statutory and regulatory requirements.
- Ensuring the design output meets the requirements of the design input, and gives adequate information for use by purchasing and manufacturing service providers.
- The control of design documents and their identity, including amendments.
- The review of designs as the work progresses.
- The final verification of the design or development before being passed for action.
- The validation of the design or development by checking that the product meets the customer's requirements.
- Control of any design changes.

7.4 Purchasing

Procedure 6 ensures that the purchasing of services and goods complies with requirements as follows:

7.4.1 Purchasing Process

- The criteria for selecting new and existing subcontractors are stated.
- The company buys from subcontractors and suppliers known for quality, environmental and safety performance.
- The quality status and performance of subcontractors and suppliers is evaluated and monitored. Records of performance are kept and reviewed.

7.4.2 Purchasing Information

- Purchase orders are clearly defined, free of ambiguity and specify technical requirements. Where applicable, verbal orders are confirmed in writing.
- All purchase orders are checked and signed by the Office Manager or other staff that buy.
- Changes to orders are specified in writing.

7.4.3 Verification of Purchased Product

- Goods inwards inspection procedures have been implemented.
- Customers have the right to verify or nominate subcontractors or suppliers, if agreed at the contract stage. If the Company wishes to verify a subcontractor's goods or operations at source, this is stipulated in the purchase contract.

7.5 Production and Service Provision

7.5.1 Process Control

Procedure 12 sets out how the work of construction work shall be controlled. It provides for:

- The production of a Risk Assessment.
- Instructions issued to site.
- The scheduling of a contracts programme by the Site Agent.
- The control of work by use of the Method Statements.
- The maintenance of equipment necessary for construction.
- The filing of all quality, safety and environmental records (e.g. waste transfer notes, safety reports, safety registers, nonconformity reports and calibration certificates).

7.5.2 Validation of Processes

Procedure 12 describes the control of "special processes" i.e. where the process output cannot be verified by inspection at a later stage, and so must be carried out before any further work takes place.

7.5.3 Identification and Traceability

Procedure 11 sets out the procedures for identifying goods and orders throughout their progress from receipt to despatch:

- Goods received are identified and properly stocked.
- Identity of an order throughout the contract is maintained by the use of Project Numbers.
- Provision is made for the identification and quarantining of nonconforming products.

7.5.4 Customer Property

The 'Control of Client Supplied Product' Procedure sets out the procedures for the control and care of documents and materials supplied by customers for incorporation into the design and production of the product. The Company applies the same standards to the acceptance of such materials and services as it would for its own purchases.

(Care of customer property extends to intellectual property.)

7.5.5 Preservation of Product

The 'Handling Storage, Packaging, Preservation and Delivery' Procedure requires that:

- Suitable handling equipment and storage facilities are provided and maintained.
- Care is taken of work-in-progress.
- The Site Agent ensures the safe care of project records.
- The Site Coordinator is responsible for the storage of material on site.

7.6 Control of Measuring and Monitoring Equipment

The 'Control of Inspection, Measuring and Test Equipment' procedure ensures that:

- Appropriate measuring and test equipment is made available.
- Measuring and test equipment is listed, maintained and calibrated according to schedule.
- The equipment is identified.
- Records relating to calibration, including tolerances allowed, tolerances measured, calibration methods, calibration dates and due dates, are properly kept for each piece of equipment.
- Calibration is carried out under the correct conditions and can be traced to National Standards.

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- Equipment which is found to be out of calibration is withdrawn until repaired or replaced, and measurements taken prior to the failure becoming apparent are reviewed.
- Equipment is stored safely to prevent damage and to preserve its accuracy.

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8. Emergencies

The 'Emergencies' Procedures sets out how the company:

- Defines potential emergencies, e.g. possible serious environmental incidents, serious accidents.
- Handles such events in the short term to minimise damage to people, the environment and property.
- Notifies the relevant agencies.
- Investigates the event and puts in place procedures to prevent or investigate the outcome in the event of a reoccurrence.

Tests the emergency procedures periodically where practicable.

9. Measurement, Analysis and Improvement

9.1 General

The company has determined where measurement of processes and service is required in order to demonstrate the conformity of the work and to ensure the conformity of the Management system, and to be able to effect improvement, and has incorporated this into the relevant Procedures.

No statistical techniques are currently deemed necessary by the Company. The appropriateness of such techniques will be kept under review as part of the internal audit schedule and if found necessary, appropriate procedures will be written and implemented.

9.2 Measurement and Monitoring

9.2.1 Customer Satisfaction

The 'Contract Review' Procedure requires that customer satisfaction is monitored by:

- The recording and analysis of customer complaints
- Regular contact between the Estimator, Project Managers and customers, with reporting back to the Management Review Meeting.

9.2.2 Internal Audit

The 'Internal Audit' Procedure ensures that the quality, safety and environmental management system is maintained and conforms to requirements:

- Auditors are appointed and trained. The Integrated Systems Manager ensures that auditors are objective, impartial and managerially independent of the activities which they audit.
- An audit schedule is maintained to indicate the frequency of each check. The schedule takes into account the importance of the activity being audited, and the results of previous audits.
- An audit plan is prepared for each procedure being audited. Audits are carried out objectively and impartially.
- An audit findings report is prepared for discussion and corrective action by the Integrated Systems Manager. Actions are followed up by the Integrated Systems Manager.

- An appraisal of audit findings is presented at the Management Review Meeting.

9.2.3 Measurement and Monitoring of Processes

The 'Control of Site Work' Procedure sets out how processes shall be controlled. It describes the management reporting and review system.

It describes the use of nonconformity reports to record production problems and the corrective actions taken.

9.2.4 Measurement and Monitoring of Service

The 'Inspection and Testing' Procedure sets down the procedures governing:

- Inspection of materials.
- Inspection of work in progress.
- Final inspection before completion of each section.
- The identification and quarantining of goods and the use of Nonconformity Reports where goods fail to meet specification.
- The keeping of inspection records.

9.2.5 Maintaining Legal Compliance

The 'Legislation' Procedure, Work Instructions and Method Statements contain instructions which, when properly observed will result in compliance with the legal requirements as defined in the 'Register of Legislation'. The 'Legislation' procedure describes how the company remains up to date with legal requirements. The process of internal auditing tests the company's compliance with the requirements of the Integrated Management System, and thereby tests compliance with the legal requirements. A separate audit is conducted to ensure that compliance has been audited comprehensively. The 'Legislation' procedure refers.

9.3 Control of Nonconformity

The 'Control of Nonconformities and Incidents' Procedure sets out procedures for control of nonconforming products, services or environmental incidents:

- Nonconforming products are quarantined.
- The examination of nonconforming products, including returned products, and decisions regarding release, rework or rejection.
- The use of Nonconformity Reports in all departments.

- Reporting to external bodies which exercise a regulatory function over the work.
- Complaints are properly actioned.

Possible emergency situations have been identified and Procedures written to keep control of the situation and to overcome any consequential environmental impacts.

9.4 Analysis of Data

Procedure 18 requires the Integrated Systems Manager periodically to examine the following data to determine trends in performance which require corrective and preventive action in order to generate continual improvement of the effectiveness of the Management System:

- Nonconformity Reports relating to: processes, products, services, customer complaints
- Customer feedback
- Supplier and subcontractor performance
- Audit findings reports
- Accident records

The analysis provides input to decisions relating to corrective action ([paragraph 9.5.2](#)), preventive action ([paragraph 9.5.3](#)) and management review ([paragraph 5.6](#)).

9.5 Improvement

9.5.1 Continual Improvement

The company has implemented procedures which lead to continual improvement, as described in paragraphs [9.5.2](#) to [9.5.4](#) below.

9.5.2 Corrective Action

The 'Control of nonconformities and Incidents' Procedure requires that the Integrated Systems Manager discusses nonconformities with the relevant manager, and progresses agreed corrective actions to completion.

9.5.3 Preventive Action

The 'Improvements, Objectives and Targets' Procedure requires that the Integrated Systems Manager uses the results of the analysis of data to define potential problems and discusses how they shall be prevented.

This discussion also takes place in the context of the Management Review Meeting.

8.2.1 Improvement Objectives and targets

Improvement objectives are proposed, either arising from the need for corrective and preventive action, or as proposals from any member of staff. Proposals are considered by the Management Review Meeting and objectives are set. Members of staff are nominated to manage each improvement plan. The progress of plans is monitored by the Integrated Systems Manager.

Appendix 1

A1.1 Summary of Manual or Procedures relating to each Clause of ISO9001: 2008

Clause of ISO9001	Title	Manual Reference	Other References
1	Scope		
1.2	Application	4.3	
4	Quality Management System		
4.1	General requirements	4.2	
4.2	General documentation requirements	4.4	
4.2.1	General	4.4.1	
4.2.2	Quality manual	4.4.2	
4.2.3	Control of documents		Proc 5
4.2.4	Control of quality records		Proc 20
5	Management Responsibility		
5.1	Management commitment	5.1	
5.2	Customer focus	5.2	
5.3	Quality policy	3 , 5.3	
5.4	Quality planning		
5.4.1	Quality objectives	5.4.3	Proc 18
5.4.2	Planning the Quality Management System	5.4.4	
5.5	Responsibility, authority and communication		
5.5.1	Responsibility and authority	5.5.1 , 6	
5.5.2	Management representative	5.5.2	
5.5.3	Internal communication	5.5.3	Proc 23
5.6	Management Review	5.6	Proc 24
5.6.1	General		Proc 24
5.6.2	Review input		Proc 24
5.6.3	Review output		Proc 24
6	Resource Management		
6.1	Provision of resources	6.1	
6.2	Human resources	6.1	
6.2.1	General	6.2.1	
6.2.2	Competence, awareness and training	6.2.2	Proc 22
6.3	Infrastructure	6.3	

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Clause of ISO9001	Title	Manual Reference	Other References
6.4	Work environment	6.4	
7	Product Realisation		
7.1	Planning of product realisation	7.1	
7.2	Customer-related processes		
7.2.1	Identification of product requirements		Proc 3
7.2.2	Review of product requirements		Proc 3
7.2.3	Customer communication		Proc 3
7.3	Design and/or development		
7.3.1	Design and development planning		Proc 4
7.3.2	Design and development inputs		Proc 4
7.3.3	Design and development outputs		Proc 4
7.3.4	Design and development review		Proc 4
7.3.5	Design and development verification		Proc 4
7.3.6	Design and development validation		Proc 4
7.3.7	Control of design and/or development changes		Proc 4
7.4	Purchasing		
7.4.1	Purchasing process		Proc 6
7.4.2	Purchasing information		Proc 6
7.4.3	Verification of purchased product		Proc 6
7.5	Production and service operations		
7.5.1	Control of production and service provision		Proc 12
7.5.2	Validation of processes for product and service provision		Proc 12
7.5.3	Identification and traceability		Proc 11
7.5.4	Customer property		Proc 10
7.5.5	Preservation of product		Proc 19
7.6	Control of measuring and monitoring devices		Proc 14
8	Measurement, analysis and improvement		
8.1	General	8.1	
8.2	Measurement and monitoring		
8.2.1	Customer satisfaction		Proc 3
8.2.2	Internal audit		Proc 21
8.2.3	Measurement and monitoring of processes		Proc 12
8.2.4	Measuring and monitoring of product		Proc 13
8.3	Control of nonconformity		Proc 16
8.4	Analysis of data		Proc 18

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Clause of ISO9001	Title	Manual Reference	Other References
8.5	Improvement		
8.5.1	Continual improvement		Proc 18
8.5.2	Corrective action		Proc 18
8.5.3	Preventive action		Proc 18

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A1.2 Summary of Manual or Procedures relating to each Clause of ISO14001: 2004

Clause of ISO14001	Title	Manual Reference	Other References
4.1	General requirements	4.1	
4.2	Environmental policy	3, 5.3.2	
4.3	Planning		
4.3.1	Environmental Aspects	5.4.1	Aspects Register
4.3.2	Legal & Other Requirements	5.4.2	Legal Register. Proc 7, 8, 9
4.3.3	Objectives targets and programmes	5.4.3, 5.4.4	Proc 18
4.4	Implementation and operation		
4.4.1	Structure and responsibility	5.5	
4.4.2	Training, awareness and competence	6.2	Proc 22
4.4.3	Communication	5.5.3	Proc 23
4.4.4	EMS documentation	4.2.1	
4.4.5	Document control	4.2.3	Proc 5
4.4.6	Review input – Operational control	7.5	Proc 12 Proc 19 Proc 25 Proc 26 Proc 27
4.4.7	Review output – Emergency preparedness and response	8.3	Proc 17
4.5	Checking and corrective action		
4.5.1	Monitoring and measurement	8.2	Proc 13
4.5.2	Evaluation of compliance	8.2.5	Proc 9
4.5.3	Nonconformance and corrective and preventive action	8.3	Proc 16
4.5.4	Control of records	4.2.4	Proc 20
4.5.5	Internal audit	8.4	Proc 21
4.6	Management review	5.6	Proc 24

A1.3 Summary of Manual or Procedures relating to each Clause of OHSAS18001

Clause of BS OHSAS18001: 2007	Title	Manual Reference	Other References
4.1	Health & Safety management system	4.1.1	
4.2	Health & Safety policy	3, 5.3.1	
4.3	Planning		
4.3.1	Hazard identification, risk assessment and determining risks	5.4.2	Proc 7, ARR4, ARR6, ARR8, ARR10, ARR11, ARR15
4.3.2	Legal & Other Requirements	5.4.3	Legal Register. Proc 9
4.3.3	Objectives and programmes	5.4.4	Proc 18
4.4	Implementation and operation		
4.4.1	Resources, roles, responsibility, accountability and authority	5.5	Proc 22, RES1, RES2, RES3, RES4
4.4.2	Competence, training and awareness	6.2.2	Proc 23, RES2
4.4.3	Consultation, participation and communication	5.5.3	ARR14, ARR17
4.4.3.1	Communication	5.5.3	
4.4.3.2	Participation and consultation	5.5.3	
4.4.4	Documentation	4.2.1	ARR9, ARR34
4.4.5	Control of documents	4.2.3	Proc 5
4.4.6	Operational control	7.5.1	Proc 12, Proc 19, Proc 25, Proc 26, Proc 27, ARR10, ARR11
4.4.7	Emergency procedures and response	8	Proc 17, ARR5
4.5	Checking		
4.5.1	Performance measurement and monitoring	9.5	Proc 14
4.5.2	Evaluation of Compliance		
4.5.3	Accidents, incidents, non-conformance and corrective and preventive action	9.3, 9.6	Proc 16, ARR34, ARR36
4.5.4	Control of Records	4.2.4	Proc 20

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Clause of BS OHSAS18001: 2007	Title	Manual Reference	Other References
4.5.5	Internal Audits	9.4	Proc 21, ARR13
4.6	Management review	5.6	Proc 24

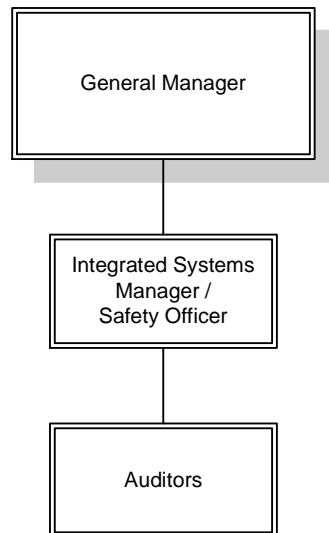
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Appendix 2

Organisation Charts

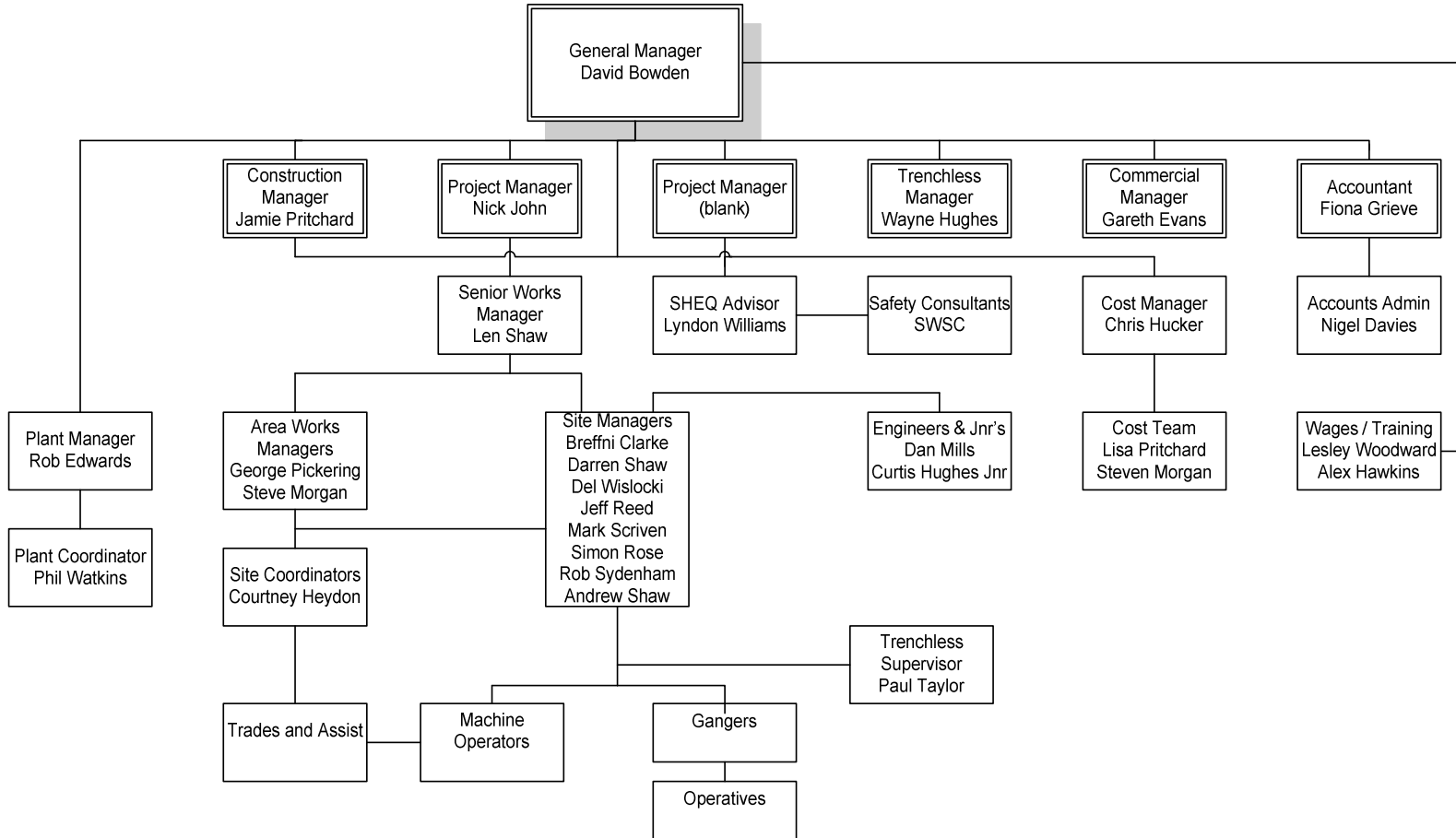
A2.1 Quality, Environmental and Safety Organisation



A2.2 Organisation of the Company

[See below:](#)

**Lewis Civil Engineering Limited & K'Nex
Pipelines & Cables Organisation Chart**



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