

## SCHEDULE B

**Document Title:** QUALITY MANUAL – Level One

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## **Abstract**

The Quality Manual establishes and states the policies governing Hoel Engineering Group's Quality Management System. These policies define management's arrangements for managing operations and activities in accordance with ISO 9001:2000/2008. These top-level policies represent the plans or protocols for achieving quality assurance and client satisfaction.

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## **1.0 PURPOSE**

The purpose of this quality manual is to establish and state the general policies governing Hoel Engineering Group's Quality Management System. These policies define management's intended arrangements for managing operations and activities in accordance with the `representing the company's plans or protocol for achieving quality assurance and client satisfaction.

All departmental or functional policies and procedures written must conform and parallel these policies. All changes to policies and procedures are reviewed to ensure that there are no conflicts with the policies stated in this Quality Manual (QM).

## **2.0 SCOPE**

The policies stated in this manual apply to all operations and activities at Hoel Engineering Group.

Our quality system applies as follows to:

- a) Design, development, and construction of engineered projects;
- b) Definition, implementation, and maintenance of the procedures required by this manual and to ensure all processes conform to these requirements;
- c) Adherence to the procedures in support of the policies contained herein
- d) The continuous improvement of activities and processes utilized by Hoel Engineering Group.

## **3.0 RELATION TO ISO 9001**

For ease of reference, the sections of this manual are numbered to coincide with the equivalent section numbers of the ISO 9001:2000 standard.

## **4.0 QUALITY MANAGEMENT SYSTEM**

### **4.1 General Requirements**

Through this manual and associated procedures and documents, Hoel Engineering Group has established, documented, and implemented a Quality Management System conforming to the requirements of ISO 9001:2000/2008. The system is designed to result in continually improving the effectiveness of Hoel Engineering Group in the operation of the quality management system and in the ability to satisfy the clients' requirements.

Hoel Engineering Group's quality management system comprises three levels: Level One being the Quality Manual, Level Two being the Quality Procedures, and Level Three is Work Procedures.

This Quality Manual, along with the associated procedures, identifies the processes necessary for the Quality Management System at Hoel Engineering Group.

Maintenance of this system is the responsibility of the Quality Management Executive in conjunction with all Department Managers.

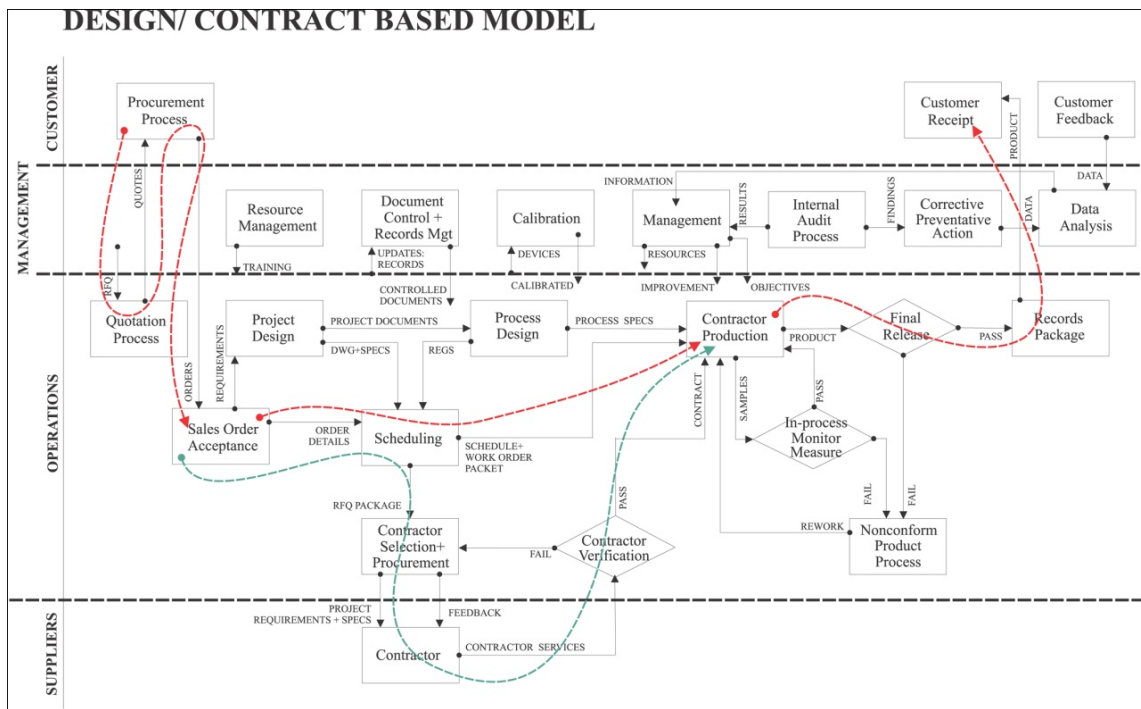


Table 1. Design / Contract Process Model

The Quality Manager maintains documentation that identifies the procedures within the process model and in coordination with the department managers, defines and improves the procedures defining these processes. Procedures include the methods necessary to ensure the effective operation, maintenance, and control of these processes. These processes are managed in accordance with the guidelines contained in ISO 9001.

Management ensures the availability of documentation and resources to support the processes through regular interaction with personnel and through audit activities during quality management reviews. Managers and senior personnel monitor, measure, and analyze processes and implement any actions necessary to achieve intended results and the continued improvement of these processes. These results are audited at quality management review meetings.

Any processes that are outsourced, and that may affect project conformity to requirements, are controlled. The Quality Manager and appropriate manager(s) are responsible for defining the methods to control outsourced processes.

## 4.2 Documentation Requirements

### 4.2.1 General

This Quality Manual and the associated Quality Procedures documentation are intended to satisfy the ISO 9001:2000/2008 documentation requirements for a quality manual, procedures, and statements of the quality policy and quality objectives. Records required by the ISO 9001 standard are identified in the appropriate Procedure.

Department managers and senior personnel are responsible for identifying any additional documents needed to ensure the effective planning, operation, and control of processes.

Procedures may vary in detail based on the size of the department involved and the type of activity performed. Procedure developers consider detail required based on the complexity of the processes, interactions, and competence of the personnel involved. Where competence is used to minimize the content in procedures, records (*see QM section 6.2.2 Competence, Awareness, and Training*) support the decision.

Documents may be any medium including: software programs, electronic text files, or hardcopy documents.

#### 4.2.2 Quality Manual

This Quality Manual includes the scope of the Hoel Engineering Group quality system. Each section of this manual references the appropriate QM procedures. Interactions between procedures are defined in this Manual or in the Quality Procedures.

#### 4.2.3 Control of Documents

All documents required by the Quality Management System (QMS) are controlled. The Document Control Procedure defines the controls needed to:

- a) Approve documents for adequacy prior to issue;
- b) Review, update, and re-issue documents;
- c) Ensure that document changes and revision status is clear;
- d) Ensure that relevant current release versions of applicable documents are available at points of use;
- e) Ensure that documents remain legible and readily identifiable;
- f) Ensure that documents of external origin are identified and their distribution controlled;
- g) Prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

#### 4.2.4 Control of Records

Procedures define the appropriate records that are to be maintained in order to provide evidence of conformity to requirements and of the effective performance of the QMS. Records must remain legible, readily identifiable, and retrievable. The Quality Records Procedure defines the controls needed for the identification, storage, protection, retrieval, retention time, and disposition of records.

### **4.3 Referenced Procedures**

QM1502 - DOCUMENT CONTROL

QM1504 - QUALITY RECORDS

## 5.0 MANAGEMENT RESPONSIBILITY

### 5.1 Management Commitment

Hoel Engineering Group shows its commitment to the Quality Management System through the development and implementation of this Quality Manual, and its associated procedures, instructions, and charts.

The Management Team, consisting of the executive managers, department/ project managers, and senior personnel, are accountable for ensuring that projects meet client as well as statutory and regulatory requirements.

### 5.2 Client Focus

The Management Team ensures that the focus on improving client satisfaction is maintained by setting and reviewing objectives related to client satisfaction during regular quality management reviews.

### 5.3 Quality Policy

Hoel Engineering Group has established a Quality Policy that is appropriate to its organization and meets the requirements set forth in ISO 9001. This policy is communicated throughout the company. Managers and senior personnel are responsible for ensuring that all employees understand the policy. To ensure this policy remains appropriate, it is reviewed periodically.

#### **Hoel Engineering Group's - Quality Policy Statement**

*It is the policy of Hoel Engineering Group to design and deliver projects that meet or exceed clients' requirements and that comply with all statutory and regulatory requirements. The company accomplishes this by adhering to quality management and operational systems that recognize client satisfaction as a primary goal.*

*We strive to continually improve the effectiveness of the quality management system and the commitment to client satisfaction by monitoring the performance against the established objectives and through leadership that promotes employee involvement. This concept represents Hoel Engineering Group's commitment to quality and the increasing need to better serve a growing and demanding client base.*

### 5.4 Planning

#### 5.4.1 Quality Objectives

Hoel Engineering Group establishes quality objectives on a regular basis. These objectives are measurable and consistent with the Quality Policy.

#### 5.4.2 Quality Management System (QMS) Planning

As part of strategic planning, Hoel Engineering Group establishes objectives for improvement of company services, processes, and client satisfaction. These objectives are supported by measures that track performance against those objectives. Managers, in turn, set departmental objectives with specific performance measures and targets that support the company objectives.

If changes to the quality management system are considered, (*either to meet objectives or because of changing business conditions*), they are reviewed to ensure that the integrity of the quality system is maintained.

## 5.5 Responsibility, Authority, and Communication

### 5.5.1 Responsibility and Authority

The responsibilities and authorities at Hoel Engineering Group are defined in each Job Description as well as the Management Responsibility procedure.

### 5.5.2 Management Representative

The Quality Manager has the responsibility and authority to:

- a) Ensure that processes needed for the quality management system are established, implemented, and maintained;
- b) Report to executive management on the performance of the quality management system and necessary improvements;
- c) Ensure the promotion of awareness of client requirements throughout the organization;
- d) Serve as the liaison with external parties on matters relating to the quality management system.

### 5.5.3 Internal Communication

In accordance with the policy of *“leadership through employee involvement”*, Hoel Engineering Group has policies that recognize open communication throughout the organization.

The effectiveness of the Quality Management System is validated through internal audit, corrective and preventive action, and departmental performance measurement.

### 5.5.4 Referenced Procedures

QM1506 - MANAGEMENT RESPONSIBILITY

QM1508 - JOB DESCRIPTIONS

## 5.6 Management Review

### 5.6.1 General

The Management Team reviews the QMS on a regular basis, to ensure its continuing suitability, adequacy, and effectiveness. The QMS review includes assessing opportunities for improvement and the need for changes to the QMS. Records of Reviews are maintained.

### 5.6.2 Review Input

The Quality and Department Managers provide the following information for quality management review:

- a) Results of audits;
- b) Client feedback;
- c) Process performance and project conformity;
- d) Status of preventive and corrective actions;
- e) Follow-up actions from previous management reviews;
- f) Changes that could affect the quality management system;
- g) Recommendations for improvement.

### 5.6.3 Review Output

Records include the output from the management review and any decisions or actions related to:

- a) Improvement of the effectiveness of the quality management system and its processes;
- b) Improvement of services related to client requirements;
- c) Resource needs.

### 5.6.4 Referenced Procedures

QM1506 - MANAGEMENT RESPONSIBILITY

QM1508 - JOB DESCRIPTIONS

## **6.0 RESOURCE MANAGEMENT**

### **6.1 Provision of Resources**

During planning and budgeting processes, and as necessary, the management team determines and ensures that the appropriate resources are available to implement and maintain the quality management system and continually improve its effectiveness and enhance client satisfaction by meeting client requirements.

### **6.2 Human Resources**

#### 6.2.1 General

Personnel performing work affecting project quality are competent based on appropriate education, training, skills, and experience.

#### 6.2.2 Competence, Awareness, and Training

The minimum competencies required for each position at Hoel Engineering Group are defined in each position's Job Description. Human Resources, managers, and senior personnel are responsible for ensuring job descriptions are current.

Where required, training for personnel is carried out to meet the minimum competency requirements.

Each department provides task-specific training.

General training or education is provided or coordinated through Human Resources. The appropriate department and / or Human Resources evaluate the effectiveness of training or education programs.

Each department generates records of task-specific training. The Human Resources department maintains records of all training and education, skills, and experience.

Managers are responsible for ensuring that employees are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives.

### 6.2.3 Referenced Procedures

QM1508 - JOB DESCRIPTIONS

QM1510 - COMPETENCE, AWARENESS, AND TRAINING

## 6.3 **Infrastructure**

Hoel Engineering Group provides the infrastructure necessary to achieve conformity to process requirements. During the annual budgeting and strategic planning, processes, buildings, workspace, and associated equipment are evaluated for required improvements. When new personnel are added, Human Resources coordinates to ensure that appropriate workplace materials, equipment, and training are provided.

## 6.4 **Work Environment**

The management team administers the work environment to ensure that personnel have a safe and desirable place to work, and that the environment is appropriate for achieving conformity to QMS requirements.

## 7.0 **PROJECT REALIZATION**

### 7.1 **Planning of Project Realization**

Hoel Engineering Group has planned and developed the processes needed to provide clients with services that meet their requirements.

The results of this planning are the processes and procedures defined in the Quality Management System documentation.

These processes and procedures include the quality objectives and requirements for client projects, the required verification, validation, monitoring, review, and test activities specific to client projects and the criteria for finished project acceptance verification.

The records needed to provide evidence that these processes and the resulting project meet requirements are defined in the procedures.

Consideration is given for the need to establish processes, documents, and obtain resources specific to a new project, as they are developed, or during contract review.

### 7.2 **Client Related Processes**

#### 7.2.1 Determination of Requirements Related to Project

Project requirements are usually defined by obtaining information as follows:

- a) Requirements specified by the client during the quotation process;
- b) Requirements specified by the authorities having jurisdiction;
- c) Requirements specified by the external organizations;
- d) Requirements determined based on best judgment and normally accepted practices.

During the quotation process, requirements specified by the client, including delivery and post-delivery activities, are defined.

Requirements not stated by the client, but that may be necessary for the projects' specified or intended use, are identified by a combination of authorities having jurisdiction, external organizations, or as established by Engineering.

Engineering also identifies statutory and regulatory requirements related to the project.

Requirements and change requests determined by external organizations or the authorities having jurisdiction are also normally communicated during the course's design review.

#### 7.2.2 Review of Requirements Related to Project

Before committing to the client, Hoel Engineering Group reviews the client's requirements related to the project to ensure that requirements can be met. These reviews include reviews of the quotation, design, orders, and change orders.

The purpose of these reviews is to determine if the projects' requirements are adequately defined. Any requirements differing from those previously understood or contracted are resolved. Hoel Engineering Group also reviews its ability to meet the defined or re-defined requirements in terms of performance and delivery.

Where a client provides a verbal order, an order confirmation is generated and sent to the client to ensure agreement on the requirements.

The Project Manager coordinates change orders or contract amendments to ensure that these items are reviewed by the appropriate departments and that work orders, sales orders, and any other documents are updated and affected personnel are made aware of the changes.

These reviews are defined in the Quotation Process procedure. Required records are also defined in these processes.

#### 7.2.3 Client Communication

In keeping with the company's commitment to client satisfaction, Hoel Engineering Group views effective client communication as an essential element of client satisfaction. Appropriate handling of communications can reduce client dissatisfaction in situations and in many cases turn a dissatisfying scenario into a satisfying experience.

The Client Services Department is responsible for establishing communication methods to ensure that enquiries, contracts, or order handling, including amendments and client feedback, are handled expeditiously and professionally.

The Sales and Marketing Department has primary responsibility for developing and issuing corporate information and literature. .

#### 7.2.4 Referenced Procedures

QM1512 - QUOTATION PROCESS

QM1514 - SALES ORDERS

QM1516 - CLIENT COMPLAINTS

### **7.3 Design and Development**

The design phase is the most important phase in the life cycle of a project. The inherent quality, effectiveness, safety, and client satisfaction of a project are established during this phase.

To ensure that specified requirements are met, the following activities are applicable for the design of a project:

### 7.3.1 Design and Development Planning

A Design Plan is to be prepared for a new design project or extensive modification to an existing project. The person assigned as Project Manager is responsible for developing a Design Plan that defines the design and development stages, and the review, verification, and validation that are appropriate to each design and development stage.

Responsibilities and authorities for design and development are defined in Job Descriptions.

Responsibilities and authorities for tasks related to a specific design and development project are assigned by the Engineering Manager and may be reflected in the project plan. The Design Plan must be updated as changes occur and the design progresses.

The Project Manager is responsible for managing the scheduling and planning of the project and the interfaces between all organizations involved. The Project Manager ensures that the progress of tasks assigned during design review meetings is followed-up and communicated to the design team or appropriate department.

### 7.3.2 Design and Development Inputs

Design Input requirements that are applicable to a project are identified, documented, and reviewed for adequacy. These Inputs include:

- a) Functional and performance requirements;
- b) Applicable statutory and regulatory requirements;
- c) Where applicable, information derived from previous similar design;
- d) Other requirements essential for design and development.

### 7.3.3 Design and Development Output

Design and development output is provided in a form that enables verification against the design and development input and is to be approved prior to release. These outputs may be in the form of technical specifications, documents, drawings, bills of materials, etc.

Design and development output:

- a) Meet the input requirements for design and development;
- b) Provide the appropriate information for tendering and provision of construction services;
- c) Contain or reference project acceptance criteria;
- d) Specify the characteristics of the project that are essential for its safe and proper use.

### 7.3.4 Design and Development Review

At the appropriate stages, systematic reviews of the Design and Development are performed in accordance with planned arrangements.

- a) To evaluate the ability of the results of design and development to meet requirements;
- b) To identify and resolve problem areas.

Participants in such reviews include the Project Manager and representatives of functions concerned with the design and development stage(s) being reviewed. Records of the results of the reviews and any necessary actions are maintained.

#### 7.3.5 Design and Development Verification

Design and development verification confirms, by objective review, that the specified design and development outputs have met the design and development input requirements.

Records of the results of the verifications and any necessary actions are maintained.

#### 7.3.6 Design and Development Validation

Design and Development validation is performed in accordance with planned arrangements to ensure that the resulting project is capable of meeting the requirements for the specified application or intended use, where known.

Wherever practicable, validation is completed before the delivery, implementation, or commissioning of the project.

Records of the results of validation and any necessary actions are maintained.

#### 7.3.7 Control of Design and Development Changes

Design and development changes are identified and records maintained. The changes are reviewed, verified, and validated, as appropriate before implementation.

The review of design and development changes includes evaluation of the effect of the changes on constituent parts already provided/ delivered.

Records of the results of the review of changes and any necessary actions are maintained.

#### 7.3.8 Referenced Procedures

QM1522 - DESIGN AND DEVELOPMENT

QM1524 - DESIGN CHANGE

QM1526 - PRE-PRODUCTION QUALITY PLANNING

### **7.4 Contracted Services**

#### 7.4.1 Requesting Contracted Services Process

Hoel Engineering Group ensures that requested services conform to the specified contract requirements. The type and extent of control applied to the contractors and their product or services are dependent upon the effect of the purchased product or services on subsequent project realization or final project.

Hoel Engineering Group evaluates and recommends suppliers or contractors based on their ability to supply in accordance with company requirements. Criteria for selection, evaluation, and re-evaluation are defined in the Supplier Evaluation procedure.

Records of the results of evaluations and any necessary actions arising from the evaluation are maintained.

#### 7.4.2 Contracted Services - Request Information

Request information describes the product/ services to be contracted, including where appropriate:

- a) Requirements for approval of project, processes, and equipment;
- b) Requirements for qualification of personnel;
- c) Quality-control requirements.

Hoel Engineering Group ensures the adequacy of the specified request requirements before communication with the contractor.

#### 7.4.3 Verification of Contracted Product or Services

Hoel Engineering Group establishes and implements the review or other activities necessary for ensuring that the contracted products or services meet specific contract requirements.

In the event that Hoel Engineering Group is to perform verification, the verification arrangements and method of product/ service/ approval/ release are stated in the request information.

#### 7.4.4 Referenced Procedures

QM1528 - SUPPLIER EVALUATION

QM1530 - PURCHASING

### 7.5 **Construction Services Provision**

#### 7.5.1 Control of Construction Services Provision

Where specified, Hoel Engineering Group plans and completes construction services activities under controlled conditions. Controlled conditions include, as applicable:

- a) The availability of information that describes the characteristics of the project;
- b) The availability of work instructions, as necessary;
- c) The use of suitable equipment;
- d) The availability and use of monitoring and measuring devices;
- e) The implementation of monitoring and measurement;
- f) The implementation of release, delivery, and post-delivery activities.

#### 7.5.2 Validation of Processes for Construction Services Provision

Hoel Engineering Group validates processes used for construction services provision where the resulting output cannot be verified by subsequent monitoring or measurement.

Validation demonstrates the ability of these processes to achieve planned results.

Hoel Engineering Group establishes arrangements for these processes, including, as applicable, documentation of the following:

- a) Defined criteria for review and approval of the processes;
- b) Approval of equipment and qualification of personnel;
- c) Use of specific methods and procedures;
- d) Requirements for records;
- e) Revalidation.

#### 7.5.3 Identification and Traceability

Hoel Engineering Group analyses a project by suitable means throughout the component life cycle.

Hoel Engineering Group analyses the project status regarding monitoring and measurement requirements.

#### 7.5.4 Client Property

Hoel Engineering Group exercises care with client property (including intellectual property) while it is under company control or being used.

Hoel Engineering Group identifies, verifies, protects, and safeguards client property provided for use or incorporation into a project. If any client property is lost, damaged or otherwise found to be unsuitable for use, it is reported to the client, and records maintained.

#### 7.5.5 Preservation of Materials, Components, and Information

Hoel Engineering Group handles materials, components, and information in a manner that preserves their conformity during internal processing and delivery. This preservation includes identification, handling, packaging, storage, and protection.

#### 7.5.6 Referenced Procedures

QM1532 - RECEIVING AND REVIEW

QM1534 - SCHEDULING

QM1536 - PRODUCTION

QM1544 - CLIENT PROPERTY

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

Hoel Engineering Group determines the monitoring and measurement to be undertaken and the devices needed to provide evidence of conformity of project to determined requirements.

Hoel Engineering Group establishes processes to ensure that monitoring and measurement can be carried out and are carried out in a manner consistent with the monitoring and measurement requirements.

### **7.7 Calibration Activities**

Where necessary to ensure valid results, measuring equipment is:

- a) Calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; where no such standards exist, the basis used for calibration or verification must be recorded;
- b) Adjusted or re-adjusted as necessary;
- c) Identified to enable the calibration status to be determined;
- d) Safeguarded from adjustments that would invalidate the measurement result;
- e) Protected from damage and deterioration resulting from handling, maintenance, and storage.

In addition, Hoel Engineering Group assesses and records the validity of the previous measuring results when the equipment is found not to conform to requirements. The organization takes appropriate action on the equipment and any project affected.

When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application is confirmed.

Records of the results of calibration and verification must be maintained.

### 7.7.2 Referenced Procedures

QM1546 - CONTROL OF MONITORING & MEASURING DEVICES

## **8.0 MEASUREMENT, ANALYSIS, AND IMPROVEMENT**

### **8.1 General**

Hoel Engineering Group plans and implements the monitoring, measurement, and improvement processes needed to:

- a) Demonstrate conformity of the services;
- b) Ensure conformity to the quality management system;
- c) Continually improve the effectiveness of the quality management system.

This includes determination of applicable methods, and the extent of their use.

### **8.2 Monitoring and Measurement**

#### 8.2.1 Client Satisfaction

As one of the measurements of the performance of the quality management system, Hoel Engineering Group monitors information relating to client perception as to whether the company has met client requirements.

The methods for obtaining and using this information are defined in the Client Satisfaction procedure.

#### 8.2.2 Internal Audit

Hoel Engineering Group conducts internal audits at planned intervals to determine whether the quality management system conforms to:

- a) The planned arrangements for project realization, to the requirements of the ISO9001: 2000 standard, and to the quality management system requirements established by Hoel Engineering Group;
- b) Effective implementation and maintenance.

An audit program is planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits.

The audit criteria, scope, frequency, and methods is defined.

Selection of auditors and conduct of audits ensures the objectivity and impartiality of the audit process. Auditors do not audit their own work.

The responsibilities and requirements for planning and conducting Audits, and for reporting results and maintaining records are defined in the quality procedures.

The management responsible for the area being audited ensure that actions are taken without undue delay to eliminate detected nonconformities and their causes.

Follow-up activities include the verification of the actions taken and the reporting of verification results.

### 8.2.3 Monitoring and Measurement of Processes

Hoel Engineering Group applies suitable methods for monitoring and, where applicable, measurements of the QMS processes. These methods demonstrate the ability of the processes to achieve planned results. When the planned results or conformity to the quality management objectives are not achieved, corrective action is taken.

### 8.2.4 Monitoring and Measurement of Projects

Hoel Engineering Group monitors and measures the characteristics of projects to verify that the requirements have been met. This is carried out at the appropriate stages of the project realization process, in accordance with the planned arrangements.

Evidence of conformity with the acceptance criteria is maintained. Records would indicate the person(s) authorizing release.

Release of projects must not proceed until the activities defined in the quality plan have been satisfactorily completed. Any exceptions must be approved by management and, where applicable, by the client.

### 8.2.5 Referenced Procedures

QM1548 - CLIENT SATISFACTION

QM1550 - INTERNAL QUALITY AUDITS

QM1552 - MONITORING & MEASUREMENT OF PROCESS

QM1556 - DATA ANALYSIS AND CONTINUAL IMPROVEMENT

QM1558 - CORRECTIVE ACTION

### 8.2.6 Control of Nonconforming Projects or Components

Projects that do not conform to requirements are identified and controlled to prevent their unintended use or delivery.

### 8.2.7 Nonconformance Actions

Hoel Engineering Group deals with nonconformance by one or more of the following methods:

- a) By taking action to eliminate the detected nonconformity;
- b) Authorizing its use, by way of release or acceptance under concession, by a relevant authority and, where applicable, by the client;
- c) By taking action to preclude its original intended use or application.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained.

When a non-conformance is corrected, it is subject to re-verification to demonstrate conformity to the requirements.

When a non-conformance is detected after delivery or use has started, Hoel Engineering Group takes action appropriate to the effects, or potential effects, of the nonconformity.

### 8.2.8 Referenced Procedures

QM1554 - CONTROL OF NON-CONFORMANCES

QM1504 - QUALITY RECORDS

### 8.3 Analysis of Data

#### 8.3.1 Quality Management System Evaluation

Hoel Engineering Group determines, collects and analyzes appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made.

This includes data generated as a result of monitoring and measurement and from other relevant sources.

The analysis of data is to provide information relating to:

- a) Client satisfaction;
- b) Conformity to requirements;
- c) Characteristics and trends of processes and projects including opportunities for preventive action;
- d) Suppliers/ Contractors.

#### 8.3.2 Referenced Procedures

QM1504 - QUALITY RECORDS

QM1516 - CLIENT COMPLAINTS

QM1548 - CLIENT SATISFACTION

QM1554 - CONTROL OF NONCONFORMANCES

QM1556 - DATA ANALYSIS AND CONTINUAL IMPROVEMENT

### 8.4 Improvement

#### 8.4.1 Continual Improvement

Hoel Engineering Group continually improves the quality management system effectiveness using the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions, and management review programs.

#### 8.4.2 Corrective Action

Hoel Engineering Group takes action to eliminate the cause of non-conformities in order to prevent recurrence.

Corrective actions relates to the nonconformities encountered.

The Corrective Action Procedure defines requirements for:

- a) Reviewing nonconformities (including client complaints);
- b) Determining the causes of nonconformities;
- c) Evaluating the need for action to ensure that nonconformities do not recur;
- d) Determining and implementing action needed;
- e) Records of the results of action taken;
- f) Reviewing corrective action taken.

#### 8.4.3 Preventive Action

Hoel Engineering Group takes action to eliminate the causes of potential nonconformities in order to prevent their recurrence. Preventive actions are to be appropriate to the effects of the potential problems.

The Preventive Action Procedure defines requirements for:

- a) Determining potential nonconformities and their causes;
- b) Evaluating the need for action to prevent occurrence of nonconformities;
- c) Determining and implementing action needed;
- d) Records of results of action taken;
- e) Reviewing preventive action taken.

#### 8.4.4 Referenced Procedures

QM1556 - DATA ANALYSIS AND CONTINUAL IMPROVEMENT

QM1558 - CORRECTIVE ACTION

QM1560 - PREVENTIVE ACTION

<b>Revision</b>	<b>Date</b>	<b>Description of changes</b>	<b>Requested By</b>
0	030629	First Draft	
1	031009	Initial Release	JH
2	121203	Second release	JH