



Almansorin Construction & Oil Services CO.	Doc Ref No.	10.02.2003 / 003				
	Date	02.04.2003				
	HEALTH, SAFETY AND ENVIRONMENT (HSE) MANUAL					
FOR CONSTRUCTION & PRECOMMISSIONING						
Sh. 1 of 10	Rev.	I1	P1	A1		

**HEALTH, SAFETY AND ENVIRONMENT (HSE)
MANUAL
FOR CONSTRUCTION AND PRECOMMISSIONING**

**APPROVED
FOR
CONSTRUCTION**

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1.0 SUMMARY

The purpose of this Health, Safety and Environment Manual, here following referenced as "HSE Manual", is to provide the working practices for health, safety and environment to be applied during the Construction and Precommissioning activities for the any Project in Libya.

The practices included in this Manual are aimed to provide the working procedures for the implementation of the ACCO's HSE Plan into the Project.

2.0 SCOPE

This Safety Manual combined with the SHES Plan form the complete HSE Programme for the evaluation, control and management of all industrial and occupational Health, Safety and Environment risks during construction and Precommissioning of the Project.

ACCO, and all ACCO's employees, agents and all Subcontractors shall comply with all applicable Libyan Government safety and environmental regulations (from here on referred as the Client) safety, health and environmental Requirements


Should the contents of this HSE Manual be in conflict with Libyan laws and Client's HSE Policy and Requirements, Libyan laws and Client's Policy and Requirements shall govern.

British Standards referenced on this Manual and its relevant procedures, shall be available at work site in order to support the document itself.

3.0 ACCO'S HSE POLICY FOR CONSTRUCTION

ACCO considers the safety and health of its employees and the employees of Subcontractors under its control to be one of its greatest responsibilities. This together with environmental protection is an integral part of ACCO's philosophy for construction.

Accordingly, ACCO has undertaken measures to minimise the risk from hazards in the workplace and to protect the natural environment as well as to safeguard the safety and health of all employees under ACCO's responsibility.

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ACCO Policy's is to develop and maintain a safe working environment and a system of safe work practices with the aim of occupational safety, health and environmental protection. This will include providing necessary guidelines and training on principles of ergonomics, industrial hygiene, toxicology and environmental protection.

Adequate personal protective equipment shall be provided to protect employees from hazards which cannot be otherwise eliminated and/or controlled.

Regular HSE audits shall be performed to monitor the effectiveness of existing procedures, identify work practices or conditions that are potentially harmful to employees and issue corrective measures as is reasonably practical.

Accidents and injuries can be avoided by practising HSE rules and the application of common sense.

By its very nature the industrial environment is hazardous, advances in technology bring new safety hazards. The challenge for the construction industry is not so much to eliminate hazards, but to know what and where the hazards are; then actions can be taken to handle these hazards.

HSE regulations must be observed, HSE standards learned and HSE procedures used.

ACCO recognises that the achievement of an effective occupational safety, health and environmental protection policy demands the active and positive involvement of all levels of management and requires the full participation and support of all employees.


It is the responsibility of both management and employees to support and promote the occupational safety, health and environmental protection policy in order to ensure a safe working environment.

4.0 HSE ORGANISATION AND RESPOSIBILITIES

A Project HSE Team has been appointed to perform all the technical activities included in this HSE Manual.

The Project HSE Team for construction includes the following:

- Construction SHES Manager, based in ACCO's home office.
- Project HSE Coordinator based in ACCO's home office.
- Site SHES Coordinator based at the work site.
- ACCO HSE Supervisors, based at the work site.
- Doctor and Male nurses, based at the work site.

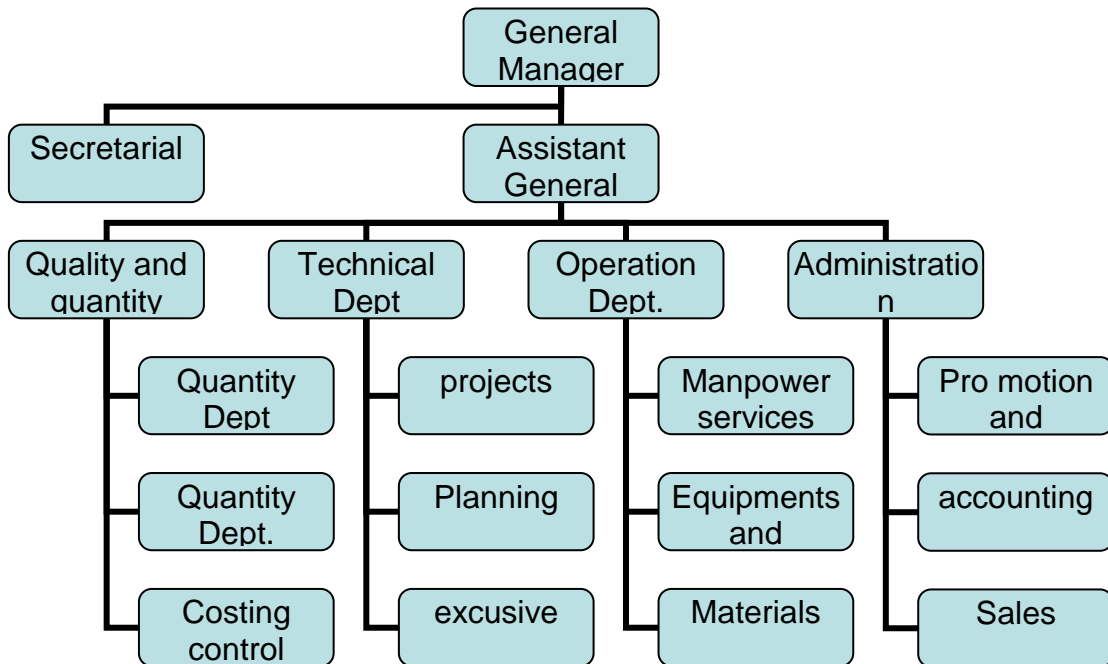
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Site SHES Coordinator shall maintain the contacts with the Construction Safety, Health, Environment and Security Department (SHES) in Tripoli and Tubroq office.

The Project HSE Team interfaces with the ACCO's Construction Management and with Subcontractors and Suppliers to guarantee that all activities comply with the Project HSE Objectives.

The organisation of the Project HSE Team for Construction is shown on Figure 1 in the next page.

ACCO . Organization Chart



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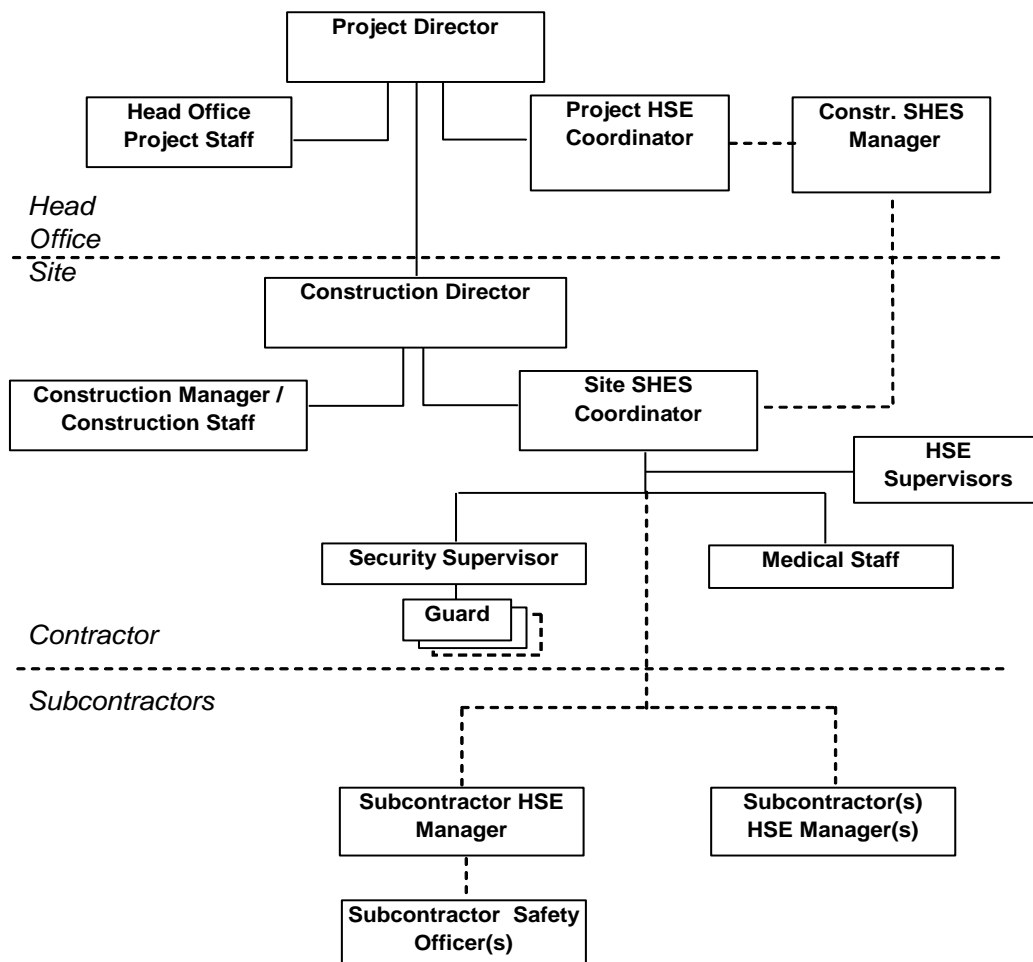



Figure 1 Project HSE Team for Construction

4.1 Construction Director

- Carries the responsibility and overall accountability for ACCO HSE Programme execution;
- Leads the ACCO's Project Team as it meets the overall objectives of the HSE Programme;
- Contributes details as necessary to the Programme;
- Ensures all subordinates including line management and supervision maintain ownership of elements of the HSE Programme and safety performance;

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- Ensures that ACCO manual and non-manual individual employee performance appraisal includes significant evaluation of the employee's commitment and performance contribution to the Zero Accident Tolerance and overall to the HSE Programme.

4.2 Construction Manager


- Is responsible for all construction activities including overall health, safety and environmental quality and performance;
- Assumes the leadership role in the HSE process;
- Sets the prime example of executing the work with full dedication to Zero Accident Tolerance;
- Ensures that all ACCO line management and supervision conduct their duties in a manner which supports the Zero Accident Tolerance philosophy.

4.3 Project HSE Coordinator (Home Office)

- Provides professional direction and guidance to the Site SHES Coordinator and Construction Director.
- Ensures necessary reviews, and updating to the SHES Plan;
- Ensures that the project receives the HSE services that it requires, and maintains awareness of the project management's and Client evaluation of that service;
- Inspects, audits and reports on the project HSE Plan to senior ACCO and Client project management.

4.4 Construction SHES Manager (Home Office)

- Provides professional direction and guidance to the Site SHES Coordinator and Construction Director;
- Gives HSE guidelines for the preparation of the "HSE Manual for Construction and Pre-Commissioning" according to project HSE requirements
- Ensures necessary reviews, and updating to the SHES Plan and HSE Manual;
- Ensures that the project receives the HSE services that it requires, and maintains awareness of the project management's and Client evaluation of that service;
- Verifies that HSE personnel assigned to the project are suitably qualified by education, training and experience in the type of work involved in this project;
- Ensures that the site is furnished with manuals of HSE procedures and technical and managerial HSE manuals appropriate to the project;
- Inspects, audits and reports on the project HSE programme to senior ACCO and Client project management.

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4.5 Site SHES Coordinator

The Site SHES (Safety, Health, Environment and Security) Coordinator will operate at the Project Site in order to ensure the management and implementation of all the relevant SHES issues. The Site SHES Coordinator responsibilities include:

- Direct reporting to the Construction Director and functional reporting to the Construction SHES Manager (Home Office) the HSE performances related to the construction and commissioning phases of the Project;
- Implementation of the Project HSE Management System at Site and promotion of the “Zero Accident Tolerance Philosophy”;
- Auditing the implementation of the Project Construction and Commissioning HSE Plans and Manuals;
- Updating and reviewing, if required, the Project Construction and Commissioning HSE Manuals;
- Management of the resources and HSE personnel required for the fulfillment of HSE tasks in Construction and Commissioning activities of the Project;
- Ensuring that all personnel involved with construction and commissioning activities, including subcontractors and vendors, are adequately instructed of the project HSE Requirements;
- Conducting, with his staff, regular HSE audits and inspections;
- Supporting and attending to the HSE Audits and to the Pre-startup Safety Review;
- Maintaining contacts with Local Authorities in charge of Health, Safety and Environmental matters;
- Managing and organising, with the Doctor, the medical and first aid service and maintain contacts with local hospitals and medical local authorities;
- Coordinating the SubACCOs' HSE Manager(s);
- Notifying the Client and the Construction SHES Manager (Home Office), through the Construction Director, of any HSE related incident/accident involving personnel, equipment, property or environment;
- Attending in the investigation and analysis of accident which could take place in field;
- Liaison between the Client, the Construction Director and the Construction SHES Manager (Home Office) for management and execution of interface HSE Activities;
- Including the provisions for HSE training of Site management and supervisory personnel, and auditing its application;

4.6 ACCO Safety, Health, Environment and Security Supervisors

- Carries out professional safety and occupational health duties as required by the Site SHES Coordinator;
- Provide the professional oversight, guidance and resources to line management and supervision to ensure ACCO achieves safety objectives and target of Zero Accidents/Incidents.

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4.7 SubACCO(s) HSE Manager

- Assist the Subcontractor(s) Site Manager in assuring that all activities included in Subcontractor's/Vendor/s scope of work at site are carried out in compliance with:
 - ⇒ Libyan laws and regulations in matter of HSE;
 - ⇒ Client HSE Policy, Principles and Requirements;
 - ⇒ ACCO's HSE Plan and Manual
- Ensure that all his own personnel are aware of HSE requirements arising from laws, regulation and contract and observe them by planning appropriate HSE training of his own personnel;
- Undertake all preventive and protective measures considered necessary to comply with HSE requirements;
- Ensure that his own personnel is provided with protective equipment according to the kind of work to be performed;
- Identify and analyze all hazards for workers under different sites and types of work;
- shall continuously verify the status of protective equipment, installations and work tools with the objective of early identifying any potential hazard to Health, Safety or Environment;
- Attend HSE meetings;
- Investigate any possible accidents with the aim of identifying corrective actions to be undertaken to prevent from re-occurrence;
- Provide the Site SHES Coordinator with required information for the ACCO Safety Statistics, as per Incident Reporting Procedure;
- Fully cooperate with the Site SHES Coordinator.

4.8 Subcontractor (s) Safety Officer(s)

The minimum ratio of Subcontractor Safety Officers to workers on site shall be 1:100. They will:

- Report directly to the Subcontractor HSE Manager;
- Understand the requirements of ACCO's HSE Plan and Manual and the Client's Policy and Requirements;
- Inspect the work site daily to report and correct unsafe methods and conditions;
- Set a personal example;
- Fully cooperate with the Site SHES Coordinator.

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5.0 HSE PROCEDURES

The following HSE working practices and procedures are included in this HSE Manual:

Site Preparation	00-ACCO-02002-01
Lifting Operations	00-ACCO-02002-02
Fire Prevention	00-ACCO-02002-03
Housekeeping	00-ACCO-02002-04
Warning Signs	00-ACCO-02002-05
Control and Use of Plant & Equipment	00-ACCO-02002-06
Personal Protective Equipment	00-ACCO-02002-07
Road and Traffic Safety	00-ACCO-02002-08
H ₂ S	00-ACCO-02002-09
Emergency Response Procedure	00-ACCO-02002-10
Waste Management	00-ACCO-02002-11
Hazardous Material	00-ACCO-02002-12
Working at Height	00-ACCO-02002-13
Temporary Electrics	00-ACCO-02002-14
Excavations	00-ACCO-02002-15
Noise	00-ACCO-02002-16
Heat Stress	00-ACCO-02002-17
Night Working	00-ACCO-02002-18
Welding Operations	00-ACCO-02002-19
Radiation	00-ACCO-02002-20
Scaffolding	00-ACCO-02002-21
Gas Cylinders Storage, Transport and Use	00-ACCO-02002-22
Portable Tools	00-ACCO-02002-23
Abrasive Wheels	00-ACCO-02002-24
Form Work	00-ACCO-02002-25
Dust control	00-ACCO-02002-26
Incentive Scheme	00-ACCO-02002-27
Permit to Work System	00-ACCO-02002-28
Accident Investigations, Follow-up Procedure	00-ACCO-02002-29
Hazard Analysis and Control Program	00-ACCO-02002-30
Discipline Procedure	00-ACCO-02002-31
Impact Assessment Tool	00-ACCO-02002-32
Inspection and Audit Proforma	00-ACCO-02002-33