



Safety Manual

1.1.1 Policies

DOLPHIN ADVANCE SOLUTION Corporate Health, Safety, and Environmental Policies are applicable to all DOLPHIN ADVANCE SOLUTION operations.

These documents lay down appropriate standards and guidance in the selection and preparation of plans and procedures to meet the standards.

1.1.2 Facility Plans and Facility Procedures

Documents that specify which HSE Standards and Systems are applicable, and how they are to be applied, e.g. the planned dates for audits, inspections, etc.

1.1.3 Procedures

Detailed procedures used to control various activities to ensure that they are carried out in a safe and efficient manner.

1.1.4 Supporting Documentation

The various drawings, forms, systems, position descriptions, etc., that support the Facility Safety Management System.

2 POLICY, OBJECTIVES, PLANNING, PERFORMANCE CRITERIA

2.1 INTENT

To establish statements detailing the Health, Safety and Environmental obligations and commitments those have been made, by DOLPHIN ADVANCE SOLUTION Management.

To detail the specific requirements for the necessary planning that is required to ensure that the Policy Statements are complied with.

To specify the assigned responsibilities and accountabilities for meeting the Policies requirements.

To specify the minimum performance criteria that must be met.

2.2 SCOPE AND APPLICATION

The requirements of this Section applies to all DOLPHIN ADVANCE SOLUTION facilities.



2.2.1 Objectives

Measurable, and achievable, objectives have been set and are outlined in each Project Safety Plan.

2.2.2 Health, Safety and Environmental Management Action Plan

DOLPHIN ADVANCE SOLUTION will, within its overall work program, maintain plans for achieving HSE objectives, targets and performance criteria. These plans will include:

A clear description of the objectives

Designation of responsibility and authority for setting and achieving objectives and performance criteria at each relevant function and level of the organization

The means by which they are to be achieved

Resource requirements

Time scales for implementation

Mechanisms to provide feedback to personnel on HSE performance

Processes to recognise good personal and team HSE performance

Mechanisms for evaluation and follow-up

The progress of the action plan is monitored by the Senior and Projects Managers of Company and is regularly reviewed.

When significant alterations or modifications in working practices, processes, equipment or material is expected, the appropriate procedures require new hazard identification, risk assessment and control review. Specific HSE and/or other operating procedures are introduced when they are needed to ensure the adequate implementation of any part of the HSE program.

3 ORGANISATION & RESPONSIBILITIES

3.1 INTENT

To ensure that HSE management's roles and responsibilities are allocated, clearly defined, and presented to all interested parties.

3.2 SCOPE AND APPLICATION

The requirements of this Section apply to the operation DOLPHIN ADVANCE SOLUTION Facilities.



3.3 MINIMUM REQUIREMENTS

3.3.1 Organization Charts

Clear organization charts showing reporting lines and lines of communication for all activities associated with DOLPHIN ADVANCE SOLUTION Facilities Operations.

Onshore Organization

The Onshore organization provides logistical and technical support and is the operational centre for the offshore facilities. The DOLPHIN ADVANCE SOLUTION HSEQ Manager is appointed by DOLPHIN ADVANCE SOLUTION in Bangkok and has direct access to senior management in Bangkok. For purposes of IMO/ISM Code, the Designated Person Ashore is the Bangkok based HSEQ Manager. The HSEQ Manager is also the Company Security Officer for the vessels.

Offshore Organization

The Offshore organization a reflection of the operational requirement in order to effectively and efficiently execute the function and operation of the facility. The Barge Superintendent is the most senior person on board the facility and has the overriding authority for protecting the facility, its immediate environment and all personnel on board.

3.4 RESPONSIBILITIES

3.4.1 Managing director

Is responsible for:

Ensuring that an organization chart is developed for the Operations Department, and that it is updated in a timely manner if any changes occur.

Ensuring that Position Descriptions are developed in a timely manner for all Operations personnel.

Ensuring that Position Descriptions are reviewed on an annual basis, or whenever the scope of the position changes.

3.4.2 Project Manager

Is responsible for:

Developing an organization chart for the Operations Department, and that it is updated in a timely manner if any changes occur.

Developing Position Descriptions in a timely manner for all Operations personnel.

Approving the Position Descriptions for all Operations personnel.



Reviewing Position Descriptions on an annual basis, or whenever the scope of the position changes.

3.4.3 HSE Coordinator

Is responsible for:

The provision of technical advice on all issues relating to Health, Safety and Environmental, with particular reference to Local, International and best operational practice.

Assist with audits and safety inspections as required.

Attend scheduled reviews of management systems.

3.4.4 All Employees

All Operations' employees, and subcontractors, are required to participate in the prevention of accidents, incidents, and loss by:

Ensuring their understanding of the FSMS, which requires that no item of safety be ignored and be dealt with in a timely manner.

Being responsible for their own safety and health, and that of others in the workplace, and for understanding their contribution towards the safety of themselves and others.

Keeping the workplace in a clean and tidy condition and not interfering with, or misusing, protective equipment that has been provided for the purpose of safety and health.

Using all personal and other protective equipment provided where appropriate.

Immediately reporting to management all incidents, accidents, near misses, or unsafe conditions or practices that may occur in the workplace.

Working in accordance with DOLPHIN ADVANCE SOLUTION FSMS, Operations Manual together with associated procedures and other requirements.

Assisting management in achieving DOLPHIN ADVANCE SOLUTION Operations HSE goals and objectives.

3.5 VERIFICATION

The successful implementation of these requirements is demonstrated by:

The availability of up-to-date and appropriate organisation charts.

The availability of up-to-date and appropriate position descriptions for all personnel.

Individuals demonstrating a thorough knowledge of the organization's structure together with their individual roles and responsibilities.



4 RISK MANAGEMENT

4.1 INTENT HAZARD IDENTIFICATION, RISK ASSESSMENT AND RISK CONTROL

DOLPHIN ADVANCE SOLUTION has established, and maintains procedures for the ongoing systematic identification of hazards and effects, the assessment of risks, and the implementation of necessary control measures. These hazards, effects and risks include those that may arise from operational activities, and from the materials that are used or encountered in them. These procedures apply to:

Planning, construction and completion

Routine and non-routine activities

Change or proposed change in DOLPHIN ADVANCE SOLUTION its activities, the work process or work environment

Activities of all personnel having access to the workplace, including subcontractors and visitors

Facilities at the workplace, whether provided by DOLPHIN ADVANCE SOLUTION or others

Incidents and potential emergency situations, including those arising from:

Product/material failures

Structural failures

Climate, geophysical and other external natural events

Sabotage and breaches of duty

Human factors including breakdowns in the HSE Management System

Oil and chemical spills

Project completion and demobilisation activities

Potential hazards and effects associated with past activities

“Ongoing” means that the application of hazard identification, risk assessment and controls implementation is integrated into all aspects of the work. The scope of this process includes activities related to contracts, procurement, engineering and design, operations, monitoring and feedback.

Hazard identification, risk assessment and control is the responsibility of everyone, including Company employees and subcontractors. Personnel at all organizational levels are expected to be appropriately involved in the identification of hazards, effects and risks.

4.2 SCOPE AND APPLICATION

The requirements of this Section apply to all of DOLPHIN ADVANCE SOLUTION operations.

4.3 MINIMUM REQUIREMENTS

4.3.1 Criteria, Goals and Standards

Criteria



Risk acceptance criteria shall be developed that are applicable to each specific facility. Unless it can be demonstrated that some alternative criteria is appropriate, the criteria for the maximum acceptable risk to any individual shall be: IRPA (Individual's Risk Per Annum) = 1×10^{-3} per annum.

Other criteria shall be developed, as appropriate, which shall be used to determine the acceptability of a facility's design, and its means of operation, from a HSE perspective.

Goals

HSE goals shall be developed that the facility's equipment and operating systems shall be designed to achieve.

Examples of such goals may include:

Minimum survival times for personnel protective systems, such as:

Temporary Refuge, evacuation equipment, alarm systems, etc.;

Maximum time to rescue personnel evacuated from a facility; etc.

Standards

Internationally accepted and Local Legislative Standards shall be used in connection with Risk Management to ensure 'best practice' is employed.

A risk management system shall be developed to ensure that this critical requirement is implemented in a consistent manner for all facilities.

4.3.2 Hazard Identification

Available Methods

Hazards can be identified by a variety of methods, including, but not limited to, the following:

HAZIDs.

Accident, incident and near-miss reporting;

Checklists,

Safety Reviews

Consultation with employees (safety committee meetings, tool box meetings, etc.);

Job Safety Analysis (JSA);

Routine Inspections

Cause-Consequence evaluation,

What-If, etc.;

Audits



HAZID Workshop

Hazard identification workshops will be undertaken at various times as part of the annual. Major Hazard review and at any time when changes or new work contracts occur that may result in additional hazards.

The HAZID workshop review group will consist of representatives of appropriate disciplines client and contractor representatives.

The Hazard Identification process is critical and shall be performed in a systematic and thorough manner. It must be properly documented, and then summarized in a Hazard Register.

The following factors ensure that the workshop identifies, and considers, all possible hazards:

Use of Hazard checklists,

Multi discipline representatives in workshop(s) ~ allowing input from both design engineers and operational personnel.

As a minimum, the Hazard identification will consider the risks associated with:

Employees (Safety and Health)

equipment, structures

hazardous substances

facility systems and activities

interaction with the environment and external facilities

Major accident and event assessment

Each identified hazard will be subjected to an initial screening, during which the likelihood and potential consequences from the hazard are assessed. Hazards identified as being remote, or of negligible consequence, are screened out from subsequent, detailed, evaluation. A risk matrix is used for this initial screening exercise, a copy of which is included in appendix. Care must be exercised in the use of this matrix if appropriate results are to be obtained.

Possible hazard elimination, control, and mitigation measures may also be identified, and recorded, during the workshop.

4.3.3 Hazard Register

A Hazard Register will be prepared that records the following information:

allocated hazard reference number

hazard details

hazard location

initiating factors

control and mitigation measures



critical procedures that must be implemented to remove or mitigate the consequences of the hazard

This register is a 'live' document and is used to manage the identified hazards

The hazard register will reviewed annually and updated if necessary to ensure that it reflects the current operations and facility design.

It will also be updated to incorporate additional hazards identified as a result of:

a planned 'major' change to the facility, or its method of operation;

a major incident;

operational experience.

All additional hazards will be subjected to consequence assessment and prioritized according to both their predicted frequency, and potential consequence.

All hazards, identified during the HAZID, will be included in the register. The register will be extended to cover other hazards including those related to 'Occupational Health and Safety'.

4.3.4 Hazard Elimination, Control, and Mitigation

DOLPHIN ADVANCE SOLUTION selects, evaluates and implements measures to reduce risks and effects. Risk reduction measures include both those to prevent incidents (i.e. reducing the probability of occurrence) and mitigate chronic and acute effects (i.e. reducing the consequences). Preventive measures such as ensuring asset integrity are to be emphasized wherever practical.

Mitigation measures include steps to prevent escalation of developing abnormal situations and to lessen adverse effects on health, safety and the environment and, ultimately, emergency response measures to recover. Effective risk reduction measures and follow-up require visible commitment of all levels of management and front-line supervision, as well as the understanding and ownership of operations personnel.

In all cases, consideration is given to reducing risk to a level deemed 'as low as reasonably practicable' (ALARP) reflecting amongst other factors, local conditions and circumstances, the balance of costs and benefits, and the current state of scientific and technical knowledge.

4.3.5 Checklists

Checklists are a useful 'tool' to assist in hazard identification at all stages of a facility's life.

Example checklists are included in Appendix .

Job Safety Analysis

The purpose of carrying out a JSA is to identify hazards identified associated with a job, and to either eliminate them or provide adequate controls to ensure that a safe working environment is provided.

A JSA shall be prepared:



for all tasks where it cannot be demonstrated that no risk of injury to personnel or damage to property or the environment exists; or,

where the task is identical to one where a JSA has previously been carried out.(these will be subject to review prior to use)

Examples of tasks requiring a JSA include, but are not limited to those involving:

lifting of objects

working at height

machinery without adequate guarding

moving objects

flammable materials

confined spaces

toxic, corrosive, harmful, irritant substance

electrical power supplies

working over water

high noise levels

ionising radiation

Hot surfaces

potential damage to property > \$20,000

pollution.

Lifting and passage of loads at elevated height.

A JSA may be used in the initial preparation, or for the validation of a procedure.

Validation may lead to a procedure being updated or changed.

4.3.6 Safety Reviews

Safety reviews shall be carried out of the engineering design, for any major changes to existing facilities.

The objective of the safety review being to carry out a structured evaluation of the design to determine any short-falls associated with the safety of personnel, or the protection of the environment and asset.

The safety reviews shall be comprised of a multi-discipline team.

4.3.7 Tool Box Meetings

All personnel involved in the task should attend the toolbox meeting, during which the hazards associated with the task are discussed and methods to minimize the risk identified for subsequent implementation.



Toolbox meetings can range from a discussion between two people, to a formal meeting held between all personnel involved in the task. During the meeting, procedures or work instructions are reviewed or temporary work instructions established.

4.3.8 Risk Assessments

Once all options for eliminating, or reducing the hazard consequences have been agreed, detailed quantified risk analysis (QRA) is carried out.

The QRA results are used to identify the major contributors to risk. Hazards that contribute a risk of $>1 \times 10^{-5}$ /yr. to the IRPA are considered further in an ALARP review.

During the ALARP review further consideration is given to potential risk reduction opportunities for these hazards, taking into account any potential escalation factors that may be appropriate.

The ALARP review group is formed from by a similar cross-section of disciplines to that used for a HAZID. This ensures appropriate involvement from employees is achieved.

4.3.9 Safety Critical Items

Assessment

Prior to commencement of operations an assessment is carried out, to determine those

procedures, items of equipment, or positions that have a direct influence on the health and safety of personnel, or the protection of the environment or asset.

The assessment shall be used to manage training, and maintenance requirements.

Recording of Hazards, Effects and Risks

DOLPHIN ADVANCE SOLUTION maintains documents of those hazards, effects and risks (chronic and acute) identified as significant in relation to health, safety and the environment, outlining the measures in place to reduce them and identifying the relevant HSE-critical systems and procedures.

4.3.10 Safety Plans

Each Facility shall develop Safety Plans. These shall describe the means by which health and safety are to be controlled throughout the facilities life. Separate Safety Plans may be developed for each phase of the project if considered appropriate.

4.3.11 Environmental Plans

An Environmental Management plan will be developed for facility operations.

4.4 RESPONSIBILITIES

4.4.1 Project Manager

Is responsible for:



Identifying all hazards that may arise during the operational phase are identified, and subjected to risk assessment;

all associated control, or mitigation measures identified are implemented in a timely manner; Safety and Environmental Plans are prepared; (This will require detailed input from the client).

all appropriate procedures are developed to control how hazards are identified and managed; appropriate training is provided to personnel involved in hazard management.

an assessment is carried out to determine the Safety Critical items associated with the facility.

4.4.2 All Employees

All personnel are responsible for ensuring that all hazards, or changes to Safety Critical Items are reported to the Barge Superintendent.

4.5 VERIFICATION

Verification that the minimum requirements of this standard have been implemented will be achieved by:

existence of procedures for risk management;

existence of hazard registers for each facility;

presence of an up-to-date Safety Case

effective application of risk management procedures.

5 EMPLOYEES

5.1 INTENT

To ensure that all operations under the control of Operations Department are provided with appropriate numbers of staff, with the required expertise.

To ensure that systems for recording employee health, qualifications, and training are in place.

Where a shortfall is identified in the experience of employees, that training is provided to address this shortfall.

To ensure that systems are in place that encourages employee participation in the management of safety, health and environmental, issues.

To ensure that should any dispute arise, the appropriate procedures are in place to enable a satisfactory resolution to be reached.

5.2 SCOPE AND APPLICATION

The requirements of this Section apply to all DOLPHIN ADVANCE SOLUTION Operating Facilities.



5.3 MINIMUM REQUIREMENTS

5.3.1 Minimum Staffing Requirements

To enable operations to be carried out effectively, it is essential that the department is staffed by a sufficient number of personnel, and that they have the appropriate expertise.

A manpower assessment has been undertaken to determine the required number of persons to safely operate the facility.

5.3.2 Selection, Competency, and Training

Position Descriptions

Position descriptions have been developed for each employment position.

The Position descriptions detail the following:

- scope,
- responsibilities
- accountabilities
- minimum experience required
- minimum qualifications required

Position descriptions are reviewed annually by the Project Manager, Safety Engineer and Barge Superintendents, and Barge Captains or whenever a significant change of duties occurs, to ensure that they accurately reflect the roles, and responsibilities of personnel filling that position.

5.3.3 Selection and Competency Criteria

Where practicable, all personnel will be required to have previous experience at the same level of responsibility in their assigned or similar role.

All employees in a supervisory position offshore shall have applicable qualifications and have had previous offshore experience.

The minimum required qualifications, and experience, for the position is detailed on the applicable position description document.

Where personnel are employed that do not have appropriate qualifications, or experience, for their intended role, then that individual will be required to receive appropriate training in those areas where there is a shortfall.

5.3.4 Health Criteria and Examinations

All personnel permanently employed offshore by DOLPHIN ADVANCE SOLUTION Operations shall be classified as medically fit to work offshore in accordance with local and/or regulatory requirements.



Follow-up medicals shall be in accordance with these requirements.

5.3.5 Training

Training provides an important contribution towards an individual's competence.

Experience in the application of skills and knowledge is an important factor, and will be provided at all levels utilizing appropriate supervision.

Needs Assessment

An assessment shall be carried out each year to determine the training requirements for the facility. From this assessment a training matrix will be developed.

These training requirements will be reassessed if significant organizational, technical, procedural, or task changes occur. This reassessment is carried out to ensure that the training matrix remains current. The training matrix is "owned" by the Barge Superintendent.

Training Records

Training records will be maintained onshore and offshore by the HSE department.

Competency Based Training

Supervision will be provided to ensure the development, and maintenance, of the required competence. This is particularly necessary for those new to a job or undergoing training for a job.

Competency based training modules have been developed to cover various equipment and system training requirements.

Regulatory Required Training

All training required by regulation will be undertaken.

Each Facility shall identify all applicable regulations requiring training associated with the safe operation of the facility.

Induction

All employees, and subcontractors, will undergo comprehensive induction training prior to starting work on the project, or commencing work on DAS facility.



An induction procedure has been developed for each facility This, as a minimum, addresses the following:

- Health, Safety and Environmental Policies
- Safety Responsibilities and Safety Management;
- Incident Reporting;
- Communications;
- Permit to Work Systems;
- Emergency Plans;
- Crew Familiarisation Programmes;
- Specific Hazard Awareness;

Induction of New Personnel and Visitors;

The induction is designed to be facility specific and will be continually assessed and improved upon throughout the life of the facility.

5.3.6 Safety Involvement and Motivation

Wherever practicable employees are encouraged to participate in hazard identification and risk reduction measures. These will include:

- Participation of operations' personnel in HAZID workshops,
- Safety Committees that review hazards at the various locations,
- Toolbox meetings
- Safety Review participation,
- Participation of operations' personnel in HAZOP studies,
- Participation in audits, and inspections, of the worksites,
- Participation in specific HSE training courses.
- Participation in the Behavioural Based Safety Programmes

Safety Committee

A Safety Committee shall be established, all members of the Safety

Committee shall be familiar with the requirements of applicable Regulations.

Safety committee meetings and toolbox meetings are designed to enhance safety and will be conducted on a regular basis. The meetings will be minute to ensure that any identified hazard is recorded and followed-up. In addition identified hazards shall be entered into the Corrective Actions Register (CAR) as appropriate.



Employees will participate in the hazard identification process through safety committee meetings, toolbox meetings, etc.

Safety Meetings

Various safety meetings shall be held. These shall include:-

- Offshore Weekly Department Safety Meeting

- Offshore Facility General Safety Meeting

- Bangkok Office Monthly Safety Meeting

These meetings will discuss matters affecting health and safety.

Toolbox Talks

A toolbox talks shall be held at the beginning and end of each shift or specifically whenever tasks are to be performed that have inherent safety or environmental risks.

The object of the toolbox meeting is to address the following basic questions:

- What steps are involved in the task?

- What can go wrong?

- How often/How bad?

- What should we do about it?

Toolbox meetings may involve a discussion between two people, or a formal meeting between all personnel involved in the task, when in addition to identifying the hazards and necessary controls, procedures or work instructions may be reviewed or temporary work instructions established.

5.3.7 Safety Promotions and Motivation

Safety promotion schemes will be considered and will be implemented where significant benefit is considered to exist.

Employee Safety Motivation

Managers and Supervisors actively encourage employee motivation for safety wherever practicable. Examples of ways in which employees may be motivated include:

- Incentive rewards

- supervisory example

- promotional material

- sharing of safety ideas

- involving employees in positive safety activities, e.g. workplace inspections notice boards etc.



5.4 VERIFICATION

Compliance with the requirements of this standard will be verified by the existence of:

- Annual manpower assessments
- Position descriptions for all applicable personnel
- Position descriptions being annually reviewed
- Annual training assessments
- Training records
- Competency based training modules
- Records demonstrating that all applicable employees have received appropriate induction
- Safety committee meeting minutes
- Effective dispute resolution procedures

6 HEALTH

6.1 INTENT

To ensure that health hazards to employees and other personnel are identified and managed.

6.2 SCOPE AND APPLICATION

This standard applies to all personnel onboard any DOLPHIN ADVANCE SOLUTION Facility and in the regional and Bangkok office.

6.3 MINIMUM REQUIREMENTS

6.3.1 Health Program

The HSEQ Manager shall implement a health program that complies with applicable local regulations, and in addition incorporates, as a minimum, the following:

- pre-employment health checks
- protection against contracting disease while at the workplace health checks
- identification and management of workplace health hazards
- health hazard exposure monitoring as appropriate

6.3.2 Personnel Safety Plan

A personnel safety plan shall be developed by the HSEQ Manager.

The plan will detail how OHS hazards may be identified and managed.



Hazards considered will include, but may not be limited to:

- mode of transport
- accommodation
- natural hazards
- local diseases
- security
- availability of fresh water, food, etc.
- availability of medical facilities,
- political climate

6.3.3 Injury Management/Rehabilitation

DOLPHIN ADVANCE SOLUTION actively promotes and supports a system for injury management and effective rehabilitation.

An injury management system has been established both in the Bangkok office and onboard the facility. This includes:

- availability of medical advice
- adequate first aid facilities
- availability of paramedics or doctors, for serious injuries
- emergency evacuation to hospital facilities

Facility or site specific procedures shall be in place detailing how medical evaluations (MEDEVAC) shall be carried out.

Reference shall be made to the Emergency Response Plan for details of the above.

6.3.4 Noise/Vibration

Noise

Wherever practicable, noise levels will be kept below 83dB(A) (or its time weighted average) assuming a continuous exposure of personnel over a 12 hour period.

This will be achieved using a hierarchy of methods to reduce noise levels. The hierarchy being:

- eliminate the source
- change the source equipment for one that produces less noise
- insulate the source to achieve a reduction of noise to acceptable levels
- install barriers around the source to reduce the noise emitted to an acceptable level
- eliminate the need for personnel to come into contact with the emitted noise



provide personal hearing protection

Provide noise mapping drawings compiled from noise survey reports

Vibration

Wherever practicable, vibration levels will be kept below a point that is likely to affect an individual's health.

This will be achieved using a hierarchy of methods to reduce vibration levels. The hierarchy being:

eliminate the source

change the source equipment for one that produces less vibration

insulate the source to achieve a reduction of vibration to acceptable levels

install barriers around the source to reduce the vibration emitted to an acceptable level

eliminate the need for personnel to come into contact with the emitted vibration

limit the time to which an individual is exposed to the effects of excessive vibration

6.3.5 Manual Handling

There are a number of factors that contribute to the likelihood of injury during manual handling of loads.

These are:

weight of the load to be lifted

shape of the load

availability of adequate hand-holds

balance of the load during the lifting operation

available space

access/egress facilities

JHAs, toolbox meetings, safety committees, safety inspections, and audits will be used to identify manual handling issues and to ensure that these are correctly addressed.

6.3.6 Substances Hazardous to Health

Hazardous Materials

Material Safety Data Sheets (MSDS) will be obtained for all substances held onboard the facility, and are made available to all personnel likely to come into contact with the substance. Instruction and training will be given to personnel regarding the control measures to be utilized, where appropriate.

MSDSs will be obtained, and reviewed, prior to any newly proposed substance being stored or used on the facility, or at the Supply Base in Dampier. No substance will be permitted on a facility unless appropriate safeguards are put into operation.



All hazardous substances will be stored, and transported in accordance with the appropriate codes, standards, and regulations.

Where there is a likelihood that personnel may be exposed to hazardous substances, engineering controls will be applied, if practicable, to prevent exposure. Where this is impracticable, then personal protective equipment will be made available.

Monthly inspections shall be carried out on a facility to verify that the inventories of hazardous materials stored do not exceed the volumes used for the risk assessment, and to verify that an MSDS is available for each hazardous material on the facility.

All hazardous substances will be labeled in accordance with applicable regulatory Requirements.

6.3.7 Hygiene

All offices and facilities shall maintain a high standard of hygiene. Particular attention being paid to accommodation, catering, toilet, and first aid facilities.

The standard shall meet the requirements of local regulations, international standards or other applicable standard as approved by the Project Manager.

Audits shall be carried out at regular intervals to ensure that the required standards are being met.

6.3.8 Health & First Aid Facilities

Onshore premises shall be provided with first aid facilities that comply with local regulations. The minimum stock levels of first aid equipment shall be maintained at all times.

All DOLPHIN ADVANCE SOLUTION Facilities shall be provided with first aid facilities that comply with the requirements of all Classification Society and Local Legislative requirements.

6.3.9 Health Monitoring

A monitoring program shall be operated that covers all health hazards at the workplace. A hygiene survey shall be undertaken on an annual basis by a competent third party. Issues such as correct storage of hazardous materials, corrosive and/or caustic chemicals, manual handling and adequate lighting shall be regularly monitored at monthly site safety inspections and during Project Manager's monthly inspection of the facility.

6.4 RESPONSIBILITIES

6.4.1 HSEQ Manager

Is responsible for:

- ensuring that the appropriate manpower is available to maintain an effective health programme.
- ensuring that a Personnel Safety Plan is prepared, if appropriate.



ensuring adequate standards of hygiene are maintained in all areas under the control of DOLPHIN ADVANCE SOLUTION Operations, including regular hygiene surveys.

ensuring that appropriate first aid facilities are available.

ensuring that a health monitoring programme is established, and operated effectively.

ensuring that potable water surveys are regularly undertaken.

6.5 VERIFICATION

Compliance with this standard will be verified by:

the existence of an effective health programme

the existence of a Personnel Safety Plan that addresses all appropriate hazards, if appropriate

records of monthly site safety inspections and Project Manager's visits to the facility

the presence of adequate noise and vibration controls

the results of potable water surveys

the availability of MSDSs for all chemicals in use.

hygiene survey results

the availability of adequate first aid facilities.

6.6 REFERENCES

Document No. Title

Corporate HSEMS Standard 11 Occupational Health and Safety

General Waste Management/Disposal

Occupational Health

Workplace Drugs & Alcohol Policy

Policy on Smoking

Catering and Sanitation

Hearing Conservation Program

Respiratory protection

Radiation Safety Plan

Control of Hazardous Substances

Potable Water Standards

7 CONTRACTOR SERVICES

7.1 INTENT

To ensure that risks to:

DOLPHIN ADVANCE SOLUTION Operations employees,



sub-contractors,
the environment, and
assets, resulting from the contracting of services, equipment, or materials are minimised.

7.2 SCOPE AND APPLICATION

This requirement applies to sub-contracts managed by DOLPHIN ADVANCE SOLUTION Operations, which could affect the safety of personnel, or cause damage to the environment or assets.

The principal contractors to whom this requirement applies are the catering contractor and any contracts that may be awarded for specific maintenance.

It is not intended to apply to individual sub-contractor personnel that are controlled in a similar manner to normal DOLPHIN ADVANCE SOLUTION Operations employees – such as those employed by the Catering and Logistics Support Contractor. The activities of such personnel are controlled by DOLPHIN ADVANCE SOLUTION Corporate SMS and FSMS procedures.

7.3 MINIMUM REQUIREMENTS

7.3.1 General

Contractors shall be classified into one of three groups.

- Category 1
- Category 2
- Category 3

Category 1

Major Contracts that require full assessment to ensure that the Contractor has a comprehensive HSE Management system, which is fully documented and implemented.

Such Contracts are generally characterized by one or more of the following:

- High community or company profile
- High risk to personnel, environment or DOLPHIN ADVANCE SOLUTION operations
- Long term or significant value
- Hazardous work environment

Some examples are:

- Diving
- Shipyard works



Marine vessel operations

Aviation

Catering

Onsite services

- cleaning
- security
- building

Offshore operations

- facility installation
- subsea installations
- pipe laying

Category 2

These Contracts require sufficient assessment to ensure that the Contractor has an acceptable HSE Management system. Such Contracts are generally characterized by one or more of the following:

Short term

Low DOLPHIN ADVANCE SOLUTION personnel involvement

Low risk to personnel, environment or DOLPHIN ADVANCE SOLUTION Operations

Controlled work environment

Some examples are:

Services contracts / orders

Transport contracts / orders

NDT/Inspection on DOLPHIN ADVANCE SOLUTION sites

Commissioning services

Shop fabrication – structural, pipe spooling, vessels.

Category 3

These Contracts require minimal DOLPHIN ADVANCE SOLUTION assessment of Contractor's HSE Management system. Examples:

KPI's

Purchase orders for "off the shelf" items

Design and engineering

Inspection offsite

General freight



7.3.2 Selection Criteria

Selection criteria shall be developed to effectively screen proposed sub-contractors. Such criteria will be developed on an item by item basis.

7.3.3 Selection Procedure

Where contracts are to be placed for the provision of safety critical items, or services, then contractors shall be subjected to a pre-qualification prior to being invited to tender.

Following this pre-qualification, contractors shall be subject to audit prior to, and after, contract award.

Contractors shall, wherever practicable, be chosen from an Approved Vendor and/or

Contractor list maintained by DOLPHIN ADVANCE SOLUTION Operations' Purchasing and Contracts section in accordance with the requirements of the QMS. Where contractors are chosen from an 'Approved Vendor' list, then the requirement to pre-qualify may be waived at the discretion of the HSEQ Manager, providing that the HSEQ Manager is satisfied that sufficient documented evidence exists to confirm the suitability of the contractor.

Contractors providing third party equipment shall be required to demonstrate that they have adequate control measures in place to ensure that the equipment used to carry out the proposed work is fit for purpose and that an appropriate planned maintenance program is in place.

The competence of all sub-contractor personnel directly responsible for ensuring the safety integrity of the supplied equipment, materials, or services, shall be evaluated prior to contract commencement.

Checklists will be developed for use when carrying out contractor audits.

Contractors will be required to complete a 'self assessment' questionnaire at the tender evaluation stage. This questionnaire will form the basis of future audits by DOLPHIN ADVANCE SOLUTION Operations if the contractor's tender is successful and if deemed necessary by the HSEQ Manager.

7.3.4 Organization

Organization charts shall be produced that clearly shows the reporting lines for contractor interfaces.

7.3.5 Contractor Safety Management

Major sub-contractors shall be required to provide Safety Plans that demonstrate how they intend to manage the safety of their operations. These Safety Plans shall be approved by the DOLPHIN ADVANCE SOLUTION Project Manager and Facility Manager/ Superintendent.



7.3.6 Safety Plans

The content of the Safety Plan is required to address the appropriate sections from the following list of elements:

- Contractor's Safety Policy
- safety planning
- safety objectives
- organisation and responsibilities
- risk assessment/risk management
- employee involvement and motivation
- employee selection, competency assessment and training
- contractor's and support services
- technical integrity, design, construction, and commissioning
- performance standards
- safe operating procedures
- technical integrity of operations, maintenance, modifications and monitoring
- management of change for systems, human resources, etc.
- health

7.3.7 Risk Management

Major contractors will be required to carry out risk assessments on their activities to the satisfaction of DOLPHIN ADVANCE SOLUTION Operations.

Hazards identified, during these risk assessments, that affect DOLPHIN ADVANCE SOLUTION Operations, or its offshore facilities, or their operation, shall be included in the facility's Hazard Register.

Major contractors will be invited to participate in risk assessments performed for the development of a Safety Case and generally contribute towards the continual development of the Safety & Facility Management Systems.

7.3.8 Bridging Document

Where required, a bridging document shall be prepared to clarify the HSE interface between DOLPHIN ADVANCE SOLUTION and the Contractor.



7.4 RESPONSIBILITIES

7.4.1 HSEQ Manager

Is responsible for ensuring that:

contractor selection criteria are developed

ensuring that applicable contractors prepare Safety Plans and where appropriate Environmental Management Plans.

approving contractor Safety Plans (with assistance from HSE support as appropriate)

ensuring that major contractors prepare risk assessments of their services, equipment, or materials

7.5 VERIFICATION

Compliance with the requirements of this section will be verified by:

the existence of audit reports for major contractors

the availability of 'Approved' contractor Safety Plans where appropriate.

the availability of 'Approved' contractor Emergency Response Plans where appropriate.

the availability of 'Approved' contractor Environmental Management Plans, where appropriate.

7.6 REFERENCES

Document Title

Corporate HSEMS Standard 4 Subcontractor and Supplier Management

Management of Subcontractors

Sub- Contractor Planning and Selection

Sub- Contractor HSE Pre-Qualification

Supplier HSE Requirements

8 SAFE OPERATING PROCEDURES

8.1 INTENT

To establish standard procedures that provides appropriate controls to:

tasks that may be potentially hazardous.

activities that could directly, or indirectly affect the safety of personnel, or which protect the environment or a facility

8.2 SCOPE AND APPLICATION

This standard applies to all operations associated with any DOLPHIN ADVANCE SOLUTION facility.



8.3 MINIMUM REQUIREMENTS

8.3.1 General

DOLPHIN ADVANCE SOLUTION have developed a system that details the roles and responsibilities for the following:

- identification that a procedure is required
- procedure preparation
- procedure approval

Additional procedures cover:

- control of procedures
- document control
- auditing and regular review of procedures
- training in the use of procedures

All processes, activities, or tasks shall be assessed to determine whether they have a direct, or indirect, influence on the safety of personnel, or the protection of the environment or a facility. The processes, activities, or tasks assessed shall include, but may not be limited to:

- construction
- installation
- commissioning
- production operations
- marine operations
- service operations, including helicopters and supply vessels, etc.
- facility modifications
- decommissioning and abandonment
- transportation and storage
- training
- maintenance
- purchasing/contracts

The need for procedures will have also been and will continue to be identified as a result of hazard identification activities. Where it is deemed impracticable for hazards to be eliminated, procedures are developed that describe the method by which the consequences of the hazard are to be controlled, or mitigated.

Where procedures are facility specific, e.g. emergency response, maintenance procedures, equipment operating procedures, etc. then these shall be developed as 'Facility Specific Procedures'. Where procedures are not facility specific then these are developed as DOLPHIN ADVANCE SOLUTION Operations Department Standards and are included in the Corporate SMS system.



8.3.2 Types of Procedures

As a minimum, the following procedures shall be developed:

- permit to work
- simultaneous operations
- isolation of process, mechanical, or electrical systems
- permitted operations
- hazard identification
- risk assessment
- job safety analysis
- hazard reporting
- incident reporting
- emergency response
- document control
- training
- assessment of critical equipment
- maintenance
- handover of responsibility
- management of change
- personnel conduct and performance
- control of contractors
- control of hazardous substances
- safe working practices, e.g. working at height, use of scaffolds or ladders, etc.
- mechanical handling
- inspection and testing
- environmental controls
- equipment calibration
- marine operations
- plant start-up/shutdown
- use of personal protective equipment

8.3.3 Work Instructions

There are many reasons why the need for Work Instructions may be identified. These would include, but may not be limited to: Job Safety Analysis, HAZID, or HAZOP studies.

Work Instructions are prepared, and issued, for specific tasks that are unlikely to be repeated.



The Barge Superintendent may, at any time, authorize a Work Instruction to be raised to cover an unusual operation, where it is deemed to be in the interests of the safety of personnel or the facility.

As Temporary Work Instructions are produced to cover operations that are outside the normal activities on the facility it is essential that great care be exercised in their preparation.

8.3.4 Content of Procedures

Standards and Procedures shall be developed in a standardized format to contain the following details as a minimum:

- procedure title
- revision history
- purpose of procedure
- scope of procedure
- methodology of performing task
- need for personal protective equipment
- limitations on application of procedure, e.g. non permitted concurrent activities
- additional controls required, e.g. cordoning off area where task is being carried out.
- minimum performance standards required
- responsibilities
- auditing requirements
- reference documentation
- standard forms or formats required in conjunction with the procedure's use.

8.3.5 Project Procedures Manual

A manual/set of manuals is maintained both in the Bangkok office and onboard the facility.

8.3.6 Critical Procedures

Procedures or standards that describe tasks/activities that if not performed in accordance with the procedure could directly result in injury to personnel or damage to the environment, or facility are classified as 'Critical'. Examples of 'critical' procedures include, but are not limited to:

- project specific plans and procedures
- permit to work
- isolation controls
- working at height
- crane operations
- hazard identification
- risk assessment and management



erection and use of scaffolds
simultaneous operations
maintenance of equipment required in an emergency, or which is provided for hazard control
change control
personnel conduct
equipment calibration
plant start-up/shutdown
use of personal protective equipment
emergency response
incident reporting
document control (e.g. use of outdated procedures or documents)

Procedures that are designated as critical shall be clearly identifiable by the user as "Safety Critical" or "Environment Sensitive".

Procedures that are not considered 'Critical' include:

safety committees
ordering of materials
maintenance of equipment that is not used in an emergency or for the control of hazard.

8.3.7 Review

Each Procedure, and Standard, is reviewed at least annually to ensure that it remains applicable to requirements.

8.3.8 Training

Training shall be provided, as appropriate, for all personnel that are required to use the procedures.

8.4 RESPONSIBILITIES

8.4.1 HSEQ Manager

Is responsible for:

ensuring that the need for procedures and standards is assessed;
ensuring that procedures and standards are developed in a timely manner where their need has been identified;
approving all critical procedures;
ensuring that an annual review is carried out of all DOLPHIN ADVANCE SOLUTION Operations Procedures and Standards (with assistance from HSE support as appropriate).



8.4.2 HSE Coordinator

Is responsible for:

ensuring that an evaluation is carried out to determine those procedures and standards that are safety critical or environmentally sensitive;

ensuring that appropriate training is provided in the use of procedures and standards.

8.5 VERIFICATION

Compliance with this section will be verified by:

the existence of appropriate standards and procedures at all locations where they are required to be used, or referenced.

evidence that an assessment has been made to determine those procedures that are critical.

evidence that appropriate training in the use of procedures has been provided to individuals that are required to use them as appropriate.

evidence that procedures and standards have been reviewed at least annually.

9 MANAGEMENT OF CHANGE

9.1 INTENT

To ensure that changes do not have an adverse effect on the safety of personnel, environmental protection, or asset protection.

9.2 SCOPE AND APPLICATION

This standard applies to operations associated with ant DOLPHIN ADVANCE SOLUTION Facility

9.3 MINIMUM REQUIREMENTS

9.3.1 Change Management System

A Change Management system has been established to control all changes that deviate from agreed procedures, plans, processes and systems

This system ensures that all proposed changes are reviewed, prior to their implementation, to determine their impact on the safety of personnel, the protection of the environment or assets.

Proposed changes are to be evaluated to determine any impact on the Safety Case, and any appropriate Statutory Requirements.

The Change Management System covers changes to:

Systems

Procedures



Human Resource
Engineering Design
Equipment
Sub-Contractors

9.3.2 System Changes

All proposed changes to the Safety & Facility Management System, or its associated Standards and Procedures are reviewed, and approved, by a team drawn from the following:

Onshore

Project Manager
Engineering Manager
HSE support

Offshore

Barge Superintendent
Operations Supervisor
Maintenance Supervisor
Production Supervisor

The review shall consider the effect of the proposed change on the safety of personnel, the environment and the asset.

Where an approved change requires additional training to be provided to personnel, then the Engineering Manager shall ensure that this is provided (with assistance from HSE support as appropriate).

9.3.3 Human Resource Changes

Proposed changes to human resources shall be controlled to ensure that there are no adverse affects to personnel safety or environmental protection.

Changes involving Safety Critical Positions, and those positions having a working interface with Safety Critical Positions, require the approval of the Organizational Change Review Team (OCRT). For such cases particular emphasis shall be placed on determining any changes in experience or competence. Where inadequate experience or competence is identified in the proposed replacement personnel, then appropriate controls shall be in place, or training provided to remove any shortfalls, prior to the individual assuming their new role.

The proposed change will be assessed by an OCRT utilizing a formal process.

Where the proposed change occurs as a result of an individual's resignation, then the assessment and implementation of any required control measures must occur prior to the effective resignation date.



The members of the OCRT shall include:

Project Manager HSEQ Manager

Engineering Manager

Barge Superintendent (only for offshore personnel changes, or onshore changes that affect the onshore/offshore interface)

HR Manager

A proposed organizational change may not proceed until the organizational change has been approved by DOLPHIN ADVANCE SOLUTION management and Client as required

9.3.4 Design and Development

Design and development is not a normal part of the DOLPHIN ADVANCE SOLUTION Operations work scope and may only occur as a result of a minor modification to a facility in which case this is covered by the Management of Change procedure.

9.4 RESPONSIBILITIES

9.4.1 Project Manager

Is responsible for:

ensuring that a Change Management System is established.

approving non facility specific personnel changes that are not considered Safety

Critical or do not have a working interface with a Safety Critical position

approving engineering design changes associated with major facility modification projects, unless a Project Manager has been appointed, when this becomes the responsibility of the Project Manager

9.4.2 Organizational Change Review Team

Is responsible for (with assistance from HSE support as appropriate):

approving proposed changes to personnel in Safety Critical positions, and those positions that have a working interface with Safety Critical positions.

9.5 VERIFICATION

Compliance with this standard will be verified by:

The existence of a Change Control Procedure

Records confirming that all changes to Safety Critical Positions have been reviewed, and approved by, the OCRT.



9.6 REFERENCES

Document No. Title

Corporate HSEMS Standard 8 Management of Change
Corporate HSEMS Standard 3 Roles and Responsibilities
Management of Change Procedure

10 EMERGENCY RESPONSE

10.1 INTENT

To ensure that effective plans, systems, and appropriately trained personnel are in place to:

detect

respond to

contain

recover from any foreseeable emergency anywhere under the control of DOLPHIN ADVANCE SOLUTION Operations Department

10.2 SCOPE AND APPLICATION

This standard applies to any DOLPHIN ADVANCE SOLUTION Facility and, to the Bangkok Office and to support service suppliers within the Facility Field

It applies to emergencies associated with:

offices

offshore facilities

field surveys

facility support services

facility installation

facility abandonment

10.3 MINIMUM REQUIREMENTS

10.3.1 Emergency Response Plan

An Emergency Response Plan has been prepared for all offices, facilities, sites, and activities where there is a potential for an emergency to arise.

These plans are 'Controlled Documents' to ensure that all copies contain the latest information.

The plan addresses the following scenarios:

Serious accident/injury



Medical emergency (medivac / casevac)

Fatality

Facility abandonment

Fire and explosion

CO2 system release

Person overboard

Flow line rupture

Mooring failure

Unauthorised acts

Helicopter emergencies

Supply vessel/vessel in distress

Tropical cyclone response

Oil spill

Diving emergencies

Structural damage

Unauthorised vessels in safety zone

Prolonged loss of main power

The plan identifies the roles and responsibilities for individuals, the company, and the following emergency teams:

Emergency Response Team

Emergency Support Team

Incident Management Team

Crisis Management Team

Adequate facilities, and funding, shall be made available both onshore and offshore to ensure that an efficient response may be provided to any emergency.

Appropriate training is identified and provided for onshore Emergency Support personnel and offshore personnel.

A schedule is included in the plan that details the emergency training, drills, and exercises, that shall be provided to ensure that the emergency response teams, emergency plans, control, and communication systems are effective.

Each Operational Base shall have a copy of the Emergency Response Plan to enable support to be provided to the Emergency Response Team by the Emergency Support Team and Incident Management Team.

The plan clearly details how the response to an emergency is initiated, how the emergency teams are activated, and the reporting relationships between the various emergency teams. Details of all required notifications of an emergency are included in the Plan.



Lines of communication are specified. These include all interfaces between:

- the offshore Emergency Response Team,
- onshore Emergency Support Team
- onshore Incident Management Team
- client/Company
- contractors
- specialist response groups, e.g. pollution cleanup, search and rescue, etc.
- helicopter operators
- support vessel operators
- statutory authorities
- media
- next of kin
- medical support groups
- Other operators with whom there is an operational interface (sharing agreements)

Contact telephone, facsimile, pager, etc. numbers, and radio frequencies where appropriate, are included in the plan for all individuals in the Emergency Teams, and also those of other organizations that may need to be contacted in an emergency.

When necessary and appropriate, 'Bridging Plans' shall be prepared to detail how the interfaces between various organizations are to be controlled.

10.3.2 Shipboard Oil Pollution Emergency Plan

A Shipboard Oil Pollution Emergency Plan (SOPEP) has been prepared for each facility

This Plan interfaces with the Emergency Response Plan as appropriate.

10.3.3 Emergency Response System

The Emergency Response System is based on four tiers:

- Emergency Response Team (Offshore)
- Emergency Support Team (Onshore)
- Incident Management Team (Client and Company with DOLPHIN ADVANCE SOLUTION Support) (Onshore)
- Crisis Management Team

10.3.4 Emergency Response Team

The Emergency Response team is comprised of personnel on the facility and provides the on-site response to an incident with a view to gaining control of the situation. They provide:

- fire-fighting



life-saving
damage control or limitation
repair

10.3.5 Training

All offshore personnel undergo 'Induction' training that includes familiarization with the Emergency Response procedures.

Regular emergency drills and exercises are held to ensure that all personnel understand their responsibilities, and actions, in the event of an emergency. The exercises include desk-top' exercises, run by a specialist Emergency Response Training organization.

Emergency response training is based around the hazards identified during the hazard identification and assessment activities and during drills and exercises held onboard the facility. The training requirements shall be developed in conjunction with a specialist Emergency Response Training organization.

The competence of personnel nominated to the various positions associated with the

Emergency Response Plan, shall be assessed during the various exercises, and the requirement for further training assessed.

11 APPENDICES

11.1 RISK ASSESSMENT MATRIX

| Consequence | 1 | 2 | 3 | 4 | 5 | 6 |
|-------------|-------|--------|--------|--------|--------|--------|
| Probability | | | | | | |
| F | Red | Yellow | Yellow | Red | Red | Red |
| E | Red | Green | Yellow | Yellow | Red | Red |
| D | White | Green | Green | Yellow | Yellow | Red |
| C | White | White | Green | Green | Yellow | Yellow |
| B | White | White | White | Green | Green | Yellow |
| A | White | White | White | White | Green | Green |

Note:



| | |
|--|------------------------------|
| | High – Intolerable |
| | Medium – Unacceptable |
| | Low – Acceptable |
| | Insignificant |

