

SUMMIT FSRT

PROJECT HSE PLAN


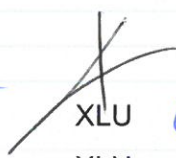

COMPANY DOCUMENT REVIEW

- Code 1 – Approved without comment
- Code 2 – Approved with minor comment / work may proceed
- Code 3 – Rejected with major comment / revise and resubmit
- Code 4 – document shall be cancelled or superseded

Reviewer name:

Signature:

Date:

REV.	DATE	REVISION SUBJECT	REDACTION	CHECK	APPROVAL
0	12/12/17	ISSUE FOR CONSTRUCTION			
B	27/10/17	ISSUE FOR REVIEW	XPE	XLU	NPE
A	19/10/17	INTERNAL REVIEW	XPE	XLU	NPE

DOCUMENT REFERENCE

COMPANY	
CONTRACTOR	468-GE-PJT-PRO-1004
OTHER	

THIS DOCUMENT IS CONFIDENTIAL. RECIPIENTS MUST OBTAIN THE WRITTEN AUTHORITY OF GEOCEAN BEFORE WHOLLY OR PARTLY DUPLICATING THE CONTENTS OR DISCLOSING THE SAME TO OTHERS. ALL RIGHT RESERVED.

TABLE OF CONTENTS

1. INTRODUCTION	5
1.1 Project description.....	5
1.2 Objective of the document.....	5
1.3 Change since last revision	5
1.4 Definitions	5
1.5 Abbreviations	5
1.6 System of units.....	6
2. REFERENCES.....	7
2.1 References of document issued by COMPANY	7
2.2 References of document issued by GEOCEAN	7
2.3 Codes and standards.....	7
3. INTRODUCTION.....	7
4. ORGANISATION CHART AND RESPONSABILITIES	7
5. HSE MANAGEMENT SYSTEM	8
5.1 HSE Policy and Objectives.....	8
5.2 HSE Management System Framework	8
5.3 GEOCEAN Golden Rules.....	8
5.4 Compliance with local rules & COMPANY rules.....	8
5.4.1 National and international laws.....	8
5.4.2 Specific requirements (CONTRACTOR/COMPANY)	8
5.5 Emergency Response Plan and MEDEVAC	8
5.5.1 Procedure	8
5.5.2 Drills & Exercices.....	9
5.6 HSE Awareness Program	9

5.7 Risk Management	9
5.7.1 Risk Assessment	9
5.7.2 Job Safety Analysis (JSA)	10
5.7.3 Main Hazardous Activities	10
5.7.4 Permit To Work	10
5.7.5 Simultaneous Operations	10
5.8 Health & Hygiene Management	10
5.8.1 Medical Check Up	10
5.8.2 Local medical support	11
5.8.3 Infectious disease prevention	11
5.8.4 Hygiene Standards	11
5.9 Environmental Management Plan	11
5.9.1 Environmental Aspects and Impact Assessment	11
5.9.2 Waste Management	11
5.9.3 Hazardous Materials Management	12
5.9.4 Noise Prevention	12
5.9.5 Water Management	12
5.9.6 Energy consumption management	12
5.9.7 Spill procedure	13
5.9.8 Biodiversity management	13
6. HSE PRACTICES	13
6.1 Skills & Trainings	13
6.2 Inductions on site	14
6.3 Meetings	15
6.3.1 Tool Box Talk	15
6.3.2 HSE Meeting with management	15
6.4 Personal Protective Equipment (PPE)	15
6.5 HSE sign boards	15
6.6 Equipment follow up	16
7. MONITORING AND REVIEW	16
7.1 HSE Walkthrough	16
7.2 HSE Management visits	16
7.3 Site audits program	16
7.4 HSE Monthly reporting	16
7.5 HSE unplanned events reporting	16

8. HSE UNPLANNED EVENTS MANAGEMENT.....	17
8.1 Incident investigation procedure.....	17
8.2 Corrective and preventive actions follow up.....	17
8.3 Flash Accident communication.....	17
9. APPENDICES	17

1. INTRODUCTION

1.1 Project description

SUMMIT LNG TERMINAL CO. (PVT.) LTD. is developing a site off the coast of Moheshkhali island, Bangladesh for the construction of an offshore marine terminal to support continuous offshore re-gasification of liquefied natural gas for onward delivery to the onshore transfer location.

The design should take into account:

- Vessel berthing and mooring arrangements at an offshore marine terminal
- Proximity distances between vessels, shore side facilities, and equipment
- Re-gasification operation, control, and monitoring functions at the offshore marine terminal being provided by the company.
- LNG and boil off gas cargo transfer operation, control and monitoring functions being provided by the FSRU and LNGC operators.
- The offshore marine terminal connection and disconnection and periodic process inspections and maintenance activities will be provided by the operators who will visit marine terminal for these particular tasks.

GEOCEAN and MacGregor, as a consortium, are in charge of the complete design, procurement, construction and installation of the mooring system for the FSRU, and the offloading system to the shore. This system will include:

- A plug system, its mooring lines and anchors, and its submarine landing pad
- The FSRU stern mooring lines and anchors
- A flexible riser from plug to a submarine PLEM
- A submarine PLEM
- A submarine pipeline up to the shore
- An onshore manifold

1.2 Objective of the document

The purpose of this document is to define and explain how HSE management system will be implemented and followed on the areas of health, safety and environment during the preparation and execution periods for the project.

1.3 Change since last revision

Revision done according COMPANY comments and review.

1.4 Definitions

COMPANY	SUMMIT LNG TERMINAL CO. (PVT.) LTD
CONTRACTOR	CONSORTIUM made of Geocean and MacGregor for the project, for which Geocean is the leader

1.5 Abbreviations

BOSIET	BASIC OFFSHORE SAFETY INDUCTION & EMERGENCY TRAINING
HSE	HEALTH, SAFETY AND ENVIRONMENT
MEDEVAC	MEDICAL EVACUATION
LTI	LOST TIME INJURY
MTC	MEDICAL TREATMENT CARE
RWC	RESTRICTED WORK CASE

PROJECT: SUMMIT FSRT

DOCUMENT: Project HSE Plan



PPE	PERSONAL PROTECTIVE EQUIPMENT
PTW	PERMIT TO WORK
RA	RISK ASSESSMENT
TBT	TOOL BOX TALK

1.6 System of units

The calculations for the all design, procurement, and installation activities use the System International (SI) system of units unless otherwise specified. Inches may however be used to quote line pipe and pipeline diameter.

2. REFERENCES

2.1 References of document issued by COMPANY

REF.	DOCUMENT REFERENCE	REVISION / DATE	DOCUMENT TITLE
[A1]			
[A2]			

2.2 References of document issued by GEOCEAN

REF.	DOCUMENT REFERENCE	REVISION / DATE	DOCUMENT TITLE
[B1]			
[B2]			

2.3 Codes and standards

REF.	DOCUMENT REFERENCE	REVISION / DATE	DOCUMENT TITLE
[C1]	CERTIFICATION	2007	OHSAS 18001
[C2]			

3. INTRODUCTION

GEOCEAN HSE Plan explain the management system that will be implemented as key elements to effectively eliminate or control risks that may have an adverse effect on the health and safety of team members or the public, and damages to the environment.

The plan describes the intent of each element of the system with further detail contained in the referenced project procedures, plans and related systems and programs.

This plan applies to all aspects of the GEOCEAN activities and subcontractors during the Project including office based activities.

4. ORGANISATION CHART AND RESPONSABILITIES

In accordance with GEOCEAN HSE Management System procedures, in all cases:

- Project Manager remains responsible for HSE Management on project.
- Construction Manager / Superintendent remains responsible for HSE on site.
- Project Management will prove HSE pro-active commitment and promote HSE objectives achievement for the Project.
- Supervisors will ensure that their personnel are fully aware of how other operations may affect their safety.
- Supervisors will ensure that their personnel are fully aware how their actions may affect the safety of others.
- HSE Objectives will be explained clearly to all workers and visitors by identifying hazards of their tasks and their mitigating measures.

GEOCEAN HSE policy states that each individual employee is responsible for his own personal safety and the safety of his co-workers who may be affected by his actions:

- Stop any operation that causes an immediate danger to personnel or property,
- Follow appropriate safety procedures,
- Use all equipment that has been provided for his safety,
- Respect the Cardinal Rules,
- Report any defects or unsafe conditions in this equipment to his immediate supervisor to enable the appropriate action to be taken to rectify the situation.

Project organization is provided in reference appendix 1.

5. HSE MANAGEMENT SYSTEM

5.1 HSE Policy and Objectives

GEOCEAN HSE Policy is attached in appendix 2.

5.2 HSE Management System Framework

HSE management system is based on the principle of continuous development and improvement. GEOCEAN Health & Safety Management system has obtained OHSAS 18001 certification by DNV in March 2014. HSE Management system is also based on ISO 14001 requirements. Please refer to the HSE philosophy (911-HSE-COR-DOC-06) for further details.

5.3 GEOCEAN Golden Rules

GEOCEAN cardinal Rules will prevail and are described below, and will be distributed to all personnel on the site, in order to adhere fully to prevent accidents and promote safety culture. These rules clearly explain the basic rules that everyone should know and apply. They are set to encourage people to be alert whenever something is being done wrong and to stop working if the risk is not properly managed.

GEOCEAN H&S Golden Rules are attached in appendix 3.

They will be presented to personal during induction on site, and posters will be displayed in the offices and on site to encourage safe working practices. SUBCONTRACTOR HSE supervisor on site will co-ordinate this distribution and awareness.

5.4 Compliance with local rules & COMPANY rules

5.4.1 National and international laws

GEOCEAN and its subcontractors shall comply with all requirements applicable to national and international laws, regarding health, safety and environment matters. A regular monitoring of those requirements shall be performed.

5.4.2 Specific requirements (CONTRACTOR/COMPANY)

GEOCEAN and its subcontractors shall comply with all COMPANY requirements.

5.5 Emergency Response Plan and MEDEVAC

5.5.1 Procedure

GEOCEAN has developed a documented Emergency Response Plan adapted to site and execution of the work plan.

The MEDEVAC flowchart is part of this ERP.

The emergency response plan is intended for:

- Project Management Teams,
- The COMPANY's representatives on site (Project Manager, HSE Manager),
- All employees and its subcontracting companies.

The plans cover emergency response:

- Scenarios for the triggering of the emergency plan,
- Systems and procedures for the shelter staff, evacuation, rescue, medical care and repatriation,

The following scenarios are covered by the ERP:

- Personal injury, illness and medical evacuation
- Fire and explosion
- Tropical storm
- Environmental accident: spills
- Security incidents

5.5.2 Drills & Exercises

Based on MEDEVAC Procedure and Emergency Response Plan, Drill and Exercises will be organized on site once a week. A detailed report (with time / duration) will be issued. At this occasion, emergency equipment shall be checked.

5.6 HSE Awareness Program

Programs already developed & implemented at GEOCEAN corporate & project scale, such as, safety incentive programs to improve HSE behavior of Project personnel will be implemented:

- Weekly HSE challenge:

It will be held on site to encourage and promote HSE initiatives and reporting from each employee. Certificate & trophy will be awarded to the winning employee.

Functioning of this challenge works must be defined regarding project requirements/ decisions.

- Near miss report via Observation Cards:

Feedback and information are strongly encouraged on site, by filling observation & near misses cards. Follow up of the corrective actions is performed directly on site via tool box talks & safety meetings.

5.7 Risk Management

5.7.1 Risk Assessment

Working procedures (or method statement) will always be completed by a risk assessment related to the activity described.

The outcome of the risk assessment is to eliminate, mitigate, monitor and continuously reduce the risk.

Preventive measures will include, but not limited to:

- Trained & qualified HSE personnel
- Certified workers (lifting, mechanics, work at height, welding, etc)
- Efficient organization, communication & adequate planning
- Certified equipment, tools & materials
- Inspections & verifications of the equipment
- Correct housekeeping
- Detailed procedures

Teams for review of Risks Assessments will be composed of Construction Manager, Project Engineers, and working team. HSE Manager can help guiding the session.

Before start-up of operation on site, Risks Assessments are displayed & distributed as largely as possible. This document reminds main project risks and corresponding preventive measures. A review of the Risks Assessments shall be organized prior work.

Also during work, if the conditions change, stop the activity and review the Risk Assessment.

5.7.2 Job Safety Analysis (JSA)

JSA will be performed on site for all non-routine jobs. HSE Supervisor and Construction Manager are required to take time with their workers to prepare a JSA prior starting the job, identifying what could go wrong and organizing control measures for everybody to work safely. The job is divided into steps. For each step, HSE risks and control measures are identified and discussed by the team. A facilitator or the supervisor records the analysis. JSA is then displayed in working area.

5.7.3 Main Hazardous Activities

Main hazardous activities must be covered by a procedure giving instructions on prevention measures to be put in place.

Hazardous activities are the following (to be adapted regarding the project):

- Lifting operation
- Work at height
- Confined space
- Transfer of personnel offshore
- Working over the side (i.e. overboard)
- Electrical, mechanical and process isolations
- Etc...

5.7.4 Permit To Work

A permit to work system is established on the project and apply to the pipelaying vessel. PTW system from the vessel will be in place to cover hazardous activities and avoid incompatible works. PTW system from the vessel will be detailed further in the Vessel Safety Management System document.

A permit to work system is in place on the fabrication yard onshore for non-routine works only (confined space, diving, bunkering...). PTW from the construction yard will be detailed further in the Site Safety Plan.

Permits to work will be archived 1 week after their completion if no HSE event has happened, or 5 years if a major HSE event has happened.

5.7.5 Simultaneous Operations

External activities executed by other companies in the same site must be assessed to avoid any risks related to simultaneous operations.

5.8 Health & Hygiene Management

5.8.1 Medical Check Up

Medical check-up will be performed as per GEOCEAN requirements.

Expatriate people will undertake a medical checkup conform to offshore activities prior departure. Local people will undertake a medical checkup in the country of the project, following GEOCEAN's requirements.

5.8.2 Local medical support

On site, GEOCEAN have a sufficient number of first aid rescuers, and will keep, as a minimum, 1 first aid rescuer for 20 employees.

First Aiders will present a valid training certificate, and will be identified by a visual symbol on their helmet. As part of the emergency medical evacuation, GEOCEAN has signed a contract for medical assistance, including medical evacuation means between sites, and establishing care.

GEOCEAN shall provide the staff and employees access to routine health care, according to the legislation.

Prevention on diseases will be continuous, through awareness, toolbox talk, displays etc...

5.8.3 Infectious disease prevention

Bangladesh is affected by several diseases mostly transmitted by mosquito bites (malaria, Japanese encephalitis ...). Vaccination is part of the medical check up quoted above. When vaccination doesn't exist, prevention is made through awareness, toolbox talk, displays etc...

The following measures must be respected at all times to prevent mosquito bites:

- wear long sleeves with clearly colours, roomy clothes in risky area,
- use repulsive on the skin and impregnate clothes of repellent,
- sleep with A/C, mosquito net,
- use chemoprophylaxis.

5.8.4 Hygiene Standards

GEOCEAN will ensure that a good level of hygiene is kept on site. Weekly inspection will be performed both offshore on the construction yard onshore.

Accommodations (toilets, rooms), catering facilities, sick bay will be addressed further in the Site Safety Plan.

5.9 Environmental Management Plan

GEOCEAN will act while minimizing the potential harm that could affect the environment. GEOCEAN will conduct its operations in accordance with all applicable regulations regarding the environment.

5.9.1 Environmental Aspects and Impact Assessment

GEOCEAN will assess environmental aspects and impacts of its activities. Specific Environmental Aspects will be taken into account to be compliant with the Environmental and Social Impact Assessment provided by Company.

5.9.2 Waste Management

GEOCEAN will manage its waste according legal, COMPANY and internal requirements.

GEOCEAN will manage its waste in order to:

- Prevent,
- Minimize,
- Reuse,
- Recycle,
- Dispose off, as a last resort

GEOCEAN will provide the drums to segregate the rubbish (food, plastic, steel) and put the proper labelling on the drums.

GEOCEAN shall issue a procedure for waste management describing the handling, storage, transportation, for all waste generated during the execution of the work.

Treatment and final disposal routes will be communicated when waste management contractor is identified.

This procedure contains a classification table including waste management, storage, and waste disposal service to recycle these wastes.

5.9.3 Hazardous Materials Management

GEOCEAN follows its internal Chemicals Management procedure describing the process for the use, handling, storage (disposal facilities), and transportation of all chemicals used.

This explains what to do in case of accidental release and explains final disposal of these products.

This procedure provides a table of classification of chemicals including the following:

- Chemical origin (activity or where the chemical is used), MSDS of all chemicals shall be available on site,
- Estimated quantity,
- Handling and storage on site
- Final following the withdrawal site.

5.9.4 Noise Prevention

Level of noise will be minimized as much as possible. Best efforts will be made to reduce noise towards sensitive species, natural habitat and villages, housing next to the construction yard, work area.

5.9.5 Water Management

Water consumption will be monitored and reported via the HSE monthly reporting. This monitoring will be performed in order to control as much as possible water consumption.

Overconsumptions will be analyzed in order to prevent any dysfunctions.

Awareness campaigns will be performed, as part of HSE awareness and training sessions.

5.9.6 Energy consumption management

Energy consumption will be monitored and reported via the HSE monthly reporting. This monitoring will be performed in order to reduce as much as possible energy consumption.

Overconsumptions will be analyzed in order to prevent any dysfunctions.

Data to be reported are the following:

- Petrol consumption (liters)
- Gasoil consumption (liters)
- Electricity consumption (kwh)

Awareness campaigns will be performed, as part of HSE awareness and training sessions.

5.9.7 Spill procedure

GEOCEAN shall apply its internal procedure in the event of accidental spillage on the construction site. To this end, GEOCEAN and its subcontractors will care about putting in place the means of passive retention:

- To protect the floor of the construction site equipment,
- To avoid oil spills or oil leaks on construction equipment,
- To contain spill of hazardous materials.

Liquid discharges and fuel consumptions offshore will be monitored through the daily progress report which is submitted to CONTRACTOR and COMPANY on a daily basis.

5.9.8 Biodiversity management

GEOCEAN will give attention to the impacts of its activity on specific species and will apply a strict monitoring. In any cases, GEOCEAN will follow regulation in place.

Environmental and Social Impact Assessment measures will be implemented.

6. HSE PRACTICES

6.1 Skills & Trainings

GEOCEAN has developed a program of training and requires qualified operators that are competent to perform all tasks with a high level of proficiency.

GEOCEAN will assess:

- The operational skills required for each job
- Experience and entitlements held by all of the staff employed in connection with the proposed construction.

Our management personnel and supervisors are all trained to act as role models by demonstrating positive HSE behaviors on site. They will all participate to “HSE Leadership program training” and “Risks Analysis training”.

The following “general training” are included in the GEOCEAN Project training matrix, updated & followed every year:

- Project Induction
- HSE Leadership training
- Risks Assessments training

- First Aid training
- Electrical risks training
- Safety behavior
- Rigging / Lifting

A training matrix details the HSE training program on all health, safety and environment matters within the scope of construction of the Project, aimed at different hierarchical levels:

- Risk assessment
- General operations critical welding grinding
- Safety Critical lifting handling
- Mechanical safety
- High Pressure Safety
- Electrical Safety
- Hazardous Materials Safety
- Environmental Awareness
- Waste Management
- First aid
- Working at height
- Excavation

The training matrix also includes certificates of qualification required by each occupation: GEOCEAN will hold the records of the certificates of all the trainings undertaken by its subcontracting companies and have it available for audits.

Training matrix is available in appendix 4.

6.2 Inductions on site

GEOCEAN HSE induction will be performed for all personnel arriving on site including visitors. The HSE induction will include but will not be limited to:

- Project overview
- Site overview
- Drugs and alcohol policy
- Smoking policy
- PPE requirements
- First aid kit locations
- Firefighting equipment locations
- Emergency procedures, equipment & response
- Types of alarm signal & actions required
- GEOCEAN safety golden rules
- Driving safety talks & awareness
- Emphasis on cardinal rule n°6: I report immediately to my supervisor any incident accident or near miss.
- Environmental Awareness – e.g. avoiding Env. Sensitive areas

A register will be signed, kept and updated on a daily basis.

Appropriate specific needs for new workers will be identified prior to mobilization:

- Safe hot work
- Fire watch induction
- Lifting safety awareness
- Lock out / Tag out
- Observation & near miss Card use
- Hearing Protection

- Hands & Fingers injuries
- Health briefing (Malaria ...)
- Environmental Awareness

6.3 Meetings

6.3.1 Tool Box Talk

Before the start of the day's activities on the work site, Tool Box Talks will be hosted by each supervisor with their team.

The topics are related to HSE matters, and their application in the performance of tasks.

A general tool box meeting, detailing specific anomalies, lessons learned on incidents or specific HSE topics will be organized every week for all its personnel and its subcontracting companies.

A toolbox attendance sheet must be signed by each attendee.

6.3.2 HSE Meeting with management

Those meeting will take place at least every two weeks. HSE matters will be discussed during this meeting. GEOCEAN Construction Manager and/or, Project Manager shall attend this meeting.

During these meetings, HSE action list will be reviewed, and decision of resources allocation will be made as necessary.

Points to be reviewed are the following:

- Review of LTI / Other recordable cases (e.g RWC, MTC, FAC) reports and follow up corrective actions taken.
- Review of the HSE Observations and Near-Miss Cards and follow up of corrective actions associated.
- Review HSE implementation (including proactive)
- HSE audits reports and follow up corrective actions taken.
- Review of personnel training
- Review of drills & exercises planning
- Lessons Learned from other similar projects.

These meetings must be documented and recorded.

6.4 Personal Protective Equipment (PPE)

PPE will be provided to each personnel, as appropriated for their specific job position. A stock of PPE will be kept for the need of its employees, site visitors and replacement of damaged or lost equipment.

Instruction for correct use of PPE will be given at the time of issuance and reminders will be given via tool box talks. All PPE appropriate to the employee's duties will be provided as necessary.

The minimum requirement of PPE to be worn is the following:

- Coverall
- Safety shoes/boots
- Helmet
- Safety Glasses
- Gloves

6.5 HSE sign boards

HSE sign boards are displayed in different point of the site, and must show, as a minimum:

- Site & PPE rules
- Working hours
- HSE bulletins
- List of First Aiders onsite, names & locations
- MEDEVAC procedure & emergency numbers

6.6 Equipment follow up

All equipment must be checked prior to its use and on regular basis. The procedure Equipment Controls has been implemented (ENTP-HSE-TPL-215A-E) and covers a wide range of light and heavy equipment. Third part certification is required for some control. A planning of control must be implemented to avoid any omission.

All related certificates must be kept on a file easily accessible.

7. MONITORING AND REVIEW

7.1 HSE Walkthrough

Project manager and/or construction manager will perform HSE walkthrough at least every month with the emission of a report. The review of actions to be implemented will be done during HSE meeting.

7.2 HSE Management visits

GEOCEAN Top Management representatives will perform regular HSE management visit. They have to issue a management visit report at the end of the visit with satisfactory points and area of improvements.

7.3 Site audits program

Site Audits will be performed to evaluate HSE level of the project. During audit, implementation of GEOCEAN HSE management system will be reviewed as well as the application and execution of procedures.

Audits can be performed by:

- GEOCEAN Corporate HSE department
- ENTREPOSE Group members
- External auditors
- COMPANY

Audit report will be issued and sent to Project Management team. Implementation of correctives actions will be followed up to close out all non-conformance.

7.4 HSE Monthly reporting

All HSE Statistics are collected / consolidated at the end of each month and communicated to HSE corporate department through the required form.

The monthly reporting form includes key performance indicators (trailing and leading indicators) and environmental indicators.

7.5 HSE unplanned events reporting

Major HSE Events as follow will be reported to HSE corporate department and Company:

- LTI: unplanned & undesired event which results in personnel injury & a sick leave of the injured person for more than 24 hrs, declared by a competent doctor.
- Other recordable cases: unplanned & undesired event with results in personnel injury with less than 24 hrs of sick leave. Non LTIs can be RWCI/RWDC, MTI/MTC or FAC.
- MD: unplanned & undesired event which results in substantial equipment breakage
- Environmental Damage: unplanned and undesired event which results in substantial environment damage/loss.

- NM: event which under slightly different circumstances could have resulted in an accident or incident.

Communication concerning incidents must be prompt and effective in order to ensure that adequate actions are taken to analyze root causes, define corrective actions and learn from these incidents.

Immediate notification with a quick description of what happened must be made towards Project Manager, Construction Manager; Corporate HSE and Client by email.

8. HSE UNPLANNED EVENTS MANAGEMENT

8.1 Incident investigation procedure

When a HSE unplanned event occurred, one of the key point is to analyze the events / facts to be able to identify the causes. This analysis will allow finding relevant corrective actions to avoid reoccurrence and must be performed within 7 days for NM, MD, FAC, MTC and RWC.

Major HSE Unplanned Events with High Potential (LTI and HiPo) must be analyzed within 1 month via root cause analysis through Accident analysis report "911-HSE-SUP-FORM-01 HSE unplanned event report_Rev6 UK-FR" & Root causes tree form "911-HSE-SUP-FORM-22 Root Causes Tree Form_Rev2 UK"

8.2 Corrective and preventive actions follow up

HSE Unplanned events and their associated corrective & preventive actions implementation will be followed up via HSE meeting and monthly report.

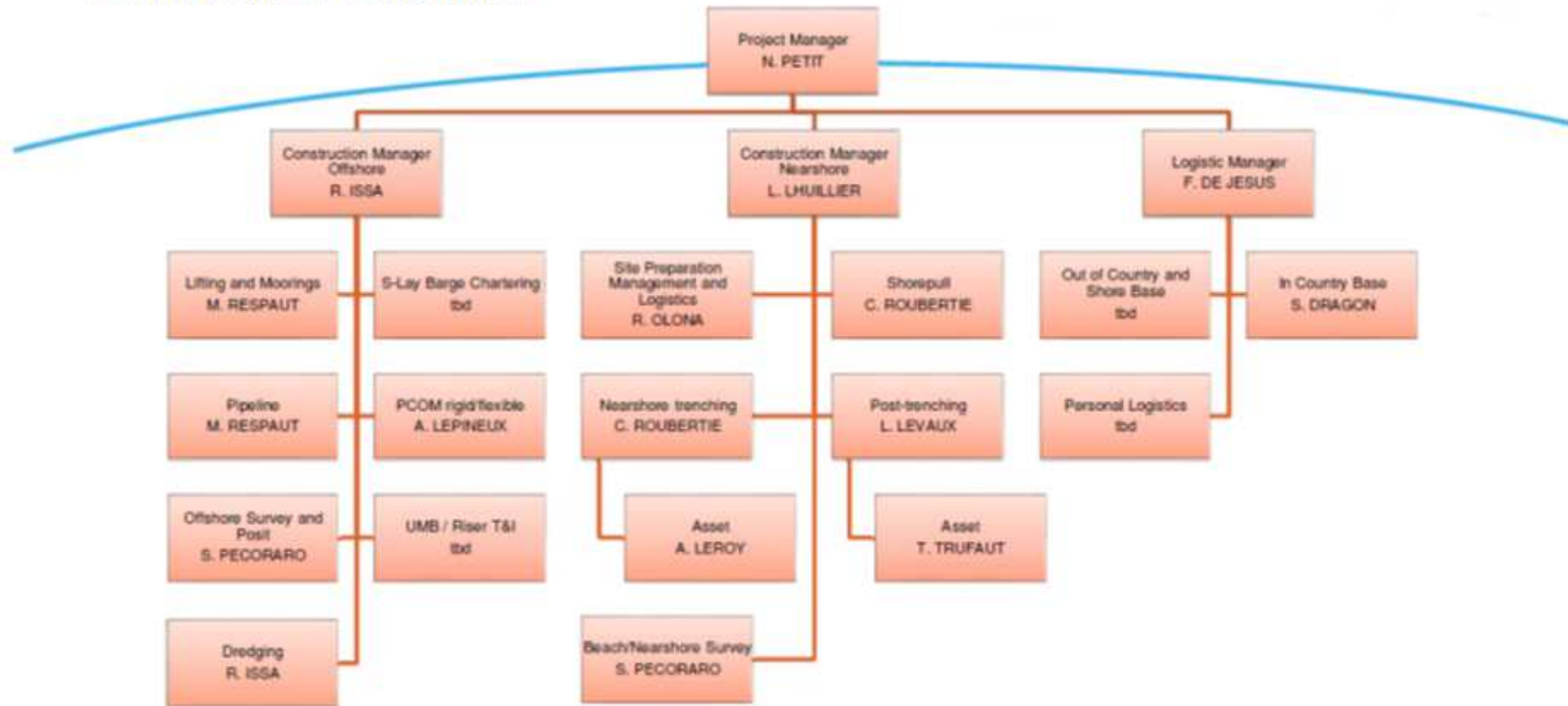
8.3 Flash Accident communication

Major HSE Events must be communicated through Flash Accident as largely as possible, including in other GEOCEAN projects.

9. APPENDICES

- Appendix 1 - Project organization chart
- Appendix 2 - GEOCEAN HSE Policy
- Appendix 3 - GEOCEAN H&S Golden Rules
- Appendix 4 - Training matrix

Construction / Installation



APPENDIX 1 – PROJECT ORGANIZATION CHART



Health, Safety and
Environment
Policy

ALL EFFORTS MUST BE MADE TOWARDS THE GOAL OF "ZERO ACCIDENTS"

Geocean sets forth as overriding priorities:

- Ensuring the safety and health of all people participating in company activities;
- Preventing pollution and mitigating the impact of our activities on the environment;
- Avoiding any damage to property and equipment.

At all levels, whether Executive Staff, Management or General Staff, accident prevention is a priority goal.

- Each person must feel personally responsible for his or her own health and safety, and for the preservation of the environment.
- Each person is attentive to the safety of his or her coworkers, and compels their teams and coworkers to identify, analyze and eliminate the risks inherent in their work.
- Each person is an example to be followed by his or her teams and coworkers, through their proactive attitude and commitment to constantly improve the measures taken to protect people, property and the environment.

Safety is the concern of each and every one of us. Every person present on a Geocean site, no matter his or her function or role, has the right and the duty to stop any operation in progress that may not be taking place in the safest conditions for all personnel participating.

Possession, distribution, and consumption of drugs, except for medical reasons, or alcoholic beverages on Geocean project sites and offices, is strictly prohibited.

Geocean reserves the right to perform a substance abuse test and / or blood alcohol content test on one of its employees at any time including in the case of an accident, or an incident involving an employee.

At Geocean, we are committed to complying with all applicable requirements (legal or others) regarding Health, Safety and Environment, and to implement them on all of our project sites, in our workshops and offices, with the support of each person. A Health, Safety and Environment management system has been implemented and must serve as a guide for following-up application of this policy and for measuring its performance in order to evaluate the necessary improvements. The application and the follow-up of this program, as well as the commitment of each one of us, are the key to success.



Cassis, June, 19th, 2015
Fabrice NOVEL
Managing Director

APPENDIX 2 – GEOCEAN HSE POLICY

APPENDIX 3 – GEOCEAN GOLDEN RULES



GEOCEAN GOLDEN RULES

<p>Golden Rule n° 1</p>  <p>I always wear my Personal Protective Equipments on site and task-specific PPE when required by the job safety analysis</p>	<p>Golden Rule n° 2</p>  <p>When boarding or leaving a barge, a vessel or a platform, I will always use equipment such as: personnel basket, pilot ladder, boat landing or gangway</p>
<p>Golden Rule n° 3</p>  <p>I never walk or stand under a suspended load</p>	<p>Golden Rule n° 4</p>  <p>I never work or drive under the influence of alcohol or drugs</p>
<p>Golden Rule n° 5</p>  <p>I do not smoke outside of dedicated areas</p>	<p>Golden Rule n° 6</p>  <p>I report immediately to my supervisor any incident, accident or near miss</p>
<p>Golden Rule n° 7</p>  <p>I do not work at heights without a safety harness if there is no collective protective equipment (guardrails, safety nets, etc.)</p>	<p>Golden Rule n° 8</p>  <p>I make sure that the power and product supply of equipment that I manipulate for maintenance, repair or modification have been cut</p>
<p>Golden Rule n° 9</p>  <p>I do not bypass or remove either barricades or machine guarding, or enter a prohibited signaled area if I'm not authorized</p>	<p>Golden Rule n° 10</p>  <p>I do not enter a confined space or excavation area without atmosphere control and protection equipments</p>

APPENDIX 4 – TRAINING MATRIX

HSE TRAINING MATRIX (GENERAL & PROTIS)
911-HSE-COR-DOC-36
Listing trainings
PW
02
09/01/2017
ref: 911-HSE-COR-DOC : Booklet training

Mandatory
Internal training
External training

Position / Intitulés de poste	HSE induction / Accueil HSE	HSE Management System Familiarisation / Présentation du système de management HSE	FIRST AIDER / Sauveteur Secouriste au Travail	BOSIET/HUET	HSE Leadership / Management HSE	RISK ANALYSIS / Analyse de risques	ROOT CAUSE ANALYSIS / Analyse d'accident par la méthode d'arbre des causes	Rigging Lifting / Elingage Levage	Rigging Lifting Supervisor / Chef de manœuvre levage	Work at height / Travail en hauteur	Dangerous goods transportation / Transport de matière dangereuse	Electrical safety / Habilitation électrique	Chemical safety / Introduction et sécurité sur le risque chimique	Scaffolding erection & use / montage & utilisation d'échafaudage	Scaffolding reception / réception d'échafaudage
Validity / Validité	5 years / ans	5 years / ans	2 years / ans	5 years / ans	5 years / ans	5 years / ans	5 years / ans	5 years / ans	5 years / ans	5 years / ans	5 years / ans	5 years / ans	5 years / ans		
CORPORATE HSE MANAGER															
PROJECT HSE MANAGER															
CONSTRUCTION MANAGER															
PROJECT DIRECTOR															
COMMERCIAL DIRECTOR															
LOGISTICIAN															
PROJECT ENGINEER			1 worker in 20	All workers going offshore											
ELECTRONIC TECHNICIAN															
OPERATION MANAGER			1 travailleur sur 20	Tous les travailleurs allant offshore											
WORKSHOP MANAGER															
SURVEYOR															
PROJECT MANAGER															
FOREMAN															
SURVEY EQUIPMENT MANAGER															
MECHANIC															
RIGGER															