

2017

# Environment Management Plan

Huracan Pty Ltd

Document Control: Public

Huracan Pty Ltd  
11-May-2017  
Revision 1.2



## Environment Management Plan Revision Details

Rev	Author	Reviewer	Date	Revision Comments
1.0	K. Hollingworth	J. Hollingworth	22-May-2014	Removed from HSEM plan to become its own document
1.1	K. Hollingworth	J. Hollingworth	22-May-2015	Minor charges, review period amended to 2 years.
1.2	K. Hollingworth	J. Hollingworth	11-May-2017	Minor format charges and review.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 1 of 29

## TABLE OF CONTENTS

1.0	Document Control .....	4
1.1	Review and Update Procedures .....	4
1.2	Document Updates .....	4
1.3	Document Publication and Display .....	4
1.4	Notice - Display Locations .....	4
2.0	Overview .....	5
2.1	Introduction & Purpose of Document .....	5
2.2	HSE Objectives, Goals and Targets .....	5
2.3	Scope of Services and Description of the Plant .....	6
2.4	Code of Conduct .....	7
2.5	Terminology .....	7
3.0	Environmental Management .....	8
3.1	Environment Policy .....	8
4.0	HSE Responsibilities & Organisation .....	8
4.1	Organisational Chart .....	10
4.2	Responsibilities & Organisation .....	11
4.2.1	Board of Directors - Is responsible for: .....	11
4.2.2	Senior Management (Operations Manager) – Is responsible for: .....	11
4.2.3	Site Manager -Is responsible for: .....	11
4.2.4	Employees and Contractors - Are responsible for: .....	12
4.2.5	HSE Manager - Is responsible for: .....	12
4.3	Health Safety & Environmental Documentation .....	13
5.0	Implementaion of Plan and Monitoring .....	14
5.1	Key Definitions .....	14
5.1	Goals and Performance Objectives .....	15
5.1	Lists & Risk Assessments .....	16
5.1.1	Risk Analysis .....	16
5.1.2	Legal and Other Requirements List .....	16
5.1.3	Operations and Activities List .....	16
5.2	Plans .....	16
5.2.1	Wastewater Discharge Management Plan .....	16
5.2.2	Hazardous Air Emissions Plan .....	17
5.2.3	Waste Minimization and Management Plan .....	17
5.2.4	Spill Prevention and Control (SPC) Plan .....	18
5.2.6	Additional Plans .....	18
5.3	Programs .....	18
5.3.1	Hazardous Substance Management & Storage Program .....	18
5.3.2	Environmental Performance Program .....	19
5.3.3	Supply Chain Management Program .....	20
5.3.4	Product Life Cycle Management .....	20
5.3.5	Energy and Water Conservation Program .....	21
5.3.6	Additional Programs .....	21
5.4	Procedures .....	21
5.4.1	Real Estate - Transactions .....	21
5.4.2	Real Estate - Material Change of Use .....	21
5.4.3	Environmental Event, Inspection, and Assessment Reporting .....	22
5.4.4	Operational Procedures .....	23
5.5	Training .....	23

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 2 of 29

5.6 Compliance Monitoring .....23

6.0 Environmental Incident Management .....25

7.0 Contractors .....26

8.0 Emergency Response .....27

9.0 Statutory Acts & Regulations .....28

Controlled Document Do Not Copy

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 3 of 29

## 1.0 DOCUMENT CONTROL

### 1.1 REVIEW AND UPDATE PROCEDURES

This document is a 'live' document that shall be updated during the course of operations. As such, the document is to be reviewed annually to incorporate initiatives from any improvement plans.

It is also to be reviewed immediately after any of the following occur;

- Major operational incident (i.e. increased apparent risk)
- Significant operational, procedural, work practice or technology change
- New or amended safety codes, safety requirements or standards are issued.
- When required by relevant State and Federal Government legislation.

Huracan Management is responsible for the review and revision of this document. Updated pages or sections are to carry a new revision date, and are circulated once the revision has been approved, by the following levels of Management:

- Operations Manager – Huracan.
- HSE Manager – Huracan.

Requested changes to the Distribution List are to be addressed to Huracan Management.

Copy	Name	Position	Company
1	Jon Hollingworth	Operations Manager	Huracan Pty Ltd
2	Katrina Hollingworth	HSE Manager	Huracan Pty Ltd

### 1.2 DOCUMENT UPDATES

Only registered copies of the document shall be updated. This document becomes uncontrolled when printed.

### 1.3 DOCUMENT PUBLICATION AND DISPLAY

This document shall be displayed at all times and shall be open for inspection by anyone to whom the plan or part of the plan may affect or apply to.

### 1.4 NOTICE - DISPLAY LOCATIONS

This document shall be available for display at the following locations;

- Huracan Office
- Huracan Internal Website

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 4 of 29

## 2.0 OVERVIEW

### 2.1 INTRODUCTION & PURPOSE OF DOCUMENT

The purpose of this document is to detail the Environment Management requirements for Huracan Management, Employees, Contractors and Site Visitors whilst performing operations on any Huracan work sites.

The document aims to provide procedures and standards to reduce identified risks at Huracan work sites to “as low as reasonably possible”, (ALARP).

This document aims to identify and clarify the critical responsibilities where there are multiple plant and contractor/owner relationships or coordination arrangements and to establish the Environmental management for contractor’s/plant owners whilst performing operations on a worksite.

The EMP implemented, is designed to meet the requirements of;

- Petroleum & Gas Act 2004
- Petroleum & Gas Regulations 2004
- Workplace Health and Safety ACT 1995
- Workplace health & Safety Regulations 1997
- AS/NZS Standards 9000-2005
- AS/NZS 4801
- ISO 14001:2004

### 2.2 HSE OBJECTIVES, GOALS AND TARGETS

Huracan shall continually improve its business performance and conduct its operations in an environmentally responsible manner, clearly reflecting a commitment to fostering the sustainable use of the Earth’s resources.

All sites shall manage their operations in a continual improvement manner in order to protect the environment, prevent pollution, minimize environmental impact, and comply with environmental laws and regulatory requirements where we operate, and Huracan’s environmental requirements.

To achieve this, Huracan shall maximise the integration of HSE policies into all its activities by ensuring that:

- Systems and resources are in place to enable effective and appropriate HSE performance.
- Plant and equipment is maintained and operated in compliance with approved practices and procedures.
- Contractors and visitors reciprocate this integral involvement and commitment to HSE management.
- Employees and contractors at every level understand their responsibility and accountability and have the skills to deliver the required HSE performance.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 5 of 29

- A culture is fostered and maintained at Huracan that values HSE commitment, teamwork and performance.

**Key components to the above objectives are:**

- Senior Management demonstrating strong leadership and participation in a robust and proactive approach to environmental management.
- Management at all levels setting goals, plans and appropriately maintained and monitored performance measures to achieve desired environmental outcomes.
- Management, employees and contractors integrating HSE into all aspects of planning, operational decisions and change management.
- The identification, assessment and appropriate control of the hazards and risks associated with every task.
- Developing Hazard Management Plans for hazards assessed as having high inherent risk.
- Consultation and two-way communication across all levels of the employee and contractor workforce.
- Reporting and adequately investigating and addressing all hazards and incidents based on potential rather than actual outcome.
- Empowering the workforce with the accountability that if something cannot be done safely then it shall not be done.
- Maintaining a system for appropriately recording, identifying, and tracking site HSE trends, actions, accountabilities and outcomes and to ensure site retention of learning's.
- Document control to ensure the maintenance, currency and availability of critical HSE information.
- The continuous monitoring, including regular internal and external safety audits, review and improvement of HSE management systems at Huracan.

In addition to the primary and proactive focus on the prevention of all incidents, Huracan shall have in place systems enabling the identification of and timely and appropriate levels of response to any adverse or potentially adverse HSE related matters, which may arise.

To achieve this Huracan shall maintain, continuously monitor and regularly test a site Emergency Management Plan which shall include:

- The provision of adequate plans, maps, training and drills to ensure all person's working in Huracan operations are aware of and able to comply with their applicable responsibilities for relevant environmental emergency response procedures.

### 2.3 SCOPE OF SERVICES AND DESCRIPTION OF THE PLANT

Huracan is supplying contract services to the client. The services provided may comprise of, but not limited to the following;

- Machinery mobilisation to well/work sites.
- Rig up and rig down of operating plant.
- Pressure testing operations.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 6 of 29

- Gas detection and contaminated atmosphere testing operations.
- Working at heights operations.
- Other operations as requested by the client and agreed to by Huracan.

## 2.4 CODE OF CONDUCT

Huracan Management requires full compliance with the HSE Plans, Emergency Response Plans and Safe Work Procedures. Infringement of the Policies contained in the HSMP, EMP, ERP and Safe Work Procedures shall be regarded as a serious breach of the Huracan code of behaviour and shall result in disciplinary action, which may include counselling or dismissal. Failing to follow safety instructions, deliberately interfering with safety equipment and systems, deliberate damage to equipment, stealing, vandalism, fighting, practical jokes and horseplay shall not be tolerated and are considered to be serious breached of the Huracan's Code of Conduct.

Additional information can be in Huracan's Code of Conduct Policy and Standard.

## 2.5 TERMINOLOGY

Acronym	Meaning
SWP	Safe Work Procedures
HSMP	Health & Safety Management Plan
EMP	Environmental Management Plan
JSA	Job Safety Analysis
TBM	Tool Box Meeting
ALARP	As Low as Reasonably Practicable
API	American Petroleum Institute
APPEA	Australian Petroleum Production & Exploration Society
IADC	International Association of Drilling Contractors
AQTF	Australian Quality Training Framework
AFD	Incident Free Days
ERP	Emergency Response Plan
PPE	Personal Protective Equipment

Additional Environmental Key definitions are available in section 5.1.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 7 of 29



## 3.0 ENVIRONMENTAL MANAGEMENT

### 3.1 ENVIRONMENT POLICY

Huracan is responsible for effective delivery of a large range of industry services that shall improve the lives of individuals we employ.

This Environmental Policy Statement covers Huracan operations throughout Australia and shall be communicated to all personnel including; Staff, Contractors, Visitors and the general public.

Huracan shall continually improve its business performance and conduct its operations in an environmentally responsible manner, clearly reflecting a commitment to fostering the sustainable use of the Earth's resources.

We shall:

- Comply with all relevant environmental legislation and regulations, and other initiatives.
- Incorporate environmental "Best Practice" into our core business plans and management processes.
- Minimise negative impact through efficient use of resources, and reduction in emissions and waste.
- Develop a framework for setting and reviewing Environmental Objectives and Targets, which shall include key environmental management and performance indicators against aspects of our operations.
- Provide for regular monitoring and reporting against the indicators to all personnel.
- Incorporate environmental "Best Practice" into all technological solutions fit-out and operation of accommodation.
- Ensure we work closely with our clients, suppliers, contractors, and other interested parties to continually improve our Environmental Best Practice.
- Support the initiation and ownership of environmental activities by all our staff to instil a strong environmentally responsive business culture.

Signed:

A handwritten signature in black ink, appearing to read "Jon Hollingworth", written over a faint, diagonal watermark that says "Confidential Document Not For Release".

Date: 1-May-2014

**Jon Hollingworth**  
**Managing Director**

## 4.0 HSE RESPONSIBILITIES & ORGANISATION

All Employees, Contractors and Management shall comply with and share responsibility for Health, Safety and Environmental Management as outlined in this document whilst conducting operations at Huracan work sites.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 8 of 29

The following sections outline the Organisational Structure of Huracan and the relevant HSE responsibilities of each level in the Organisational structure.

Controlled Document Do Not Copy

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 9 of 29

## Huracan HSEMP

### 4.1 ORGANISATIONAL CHART



Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 10 of 29

## 4.2 RESPONSIBILITIES & ORGANISATION

### 4.2.1 BOARD OF DIRECTORS - IS RESPONSIBLE FOR:

- Providing direction and endorsement of the Safety Management Plan and ensure its adequacy and the commitment of Management.
- Providing adequate human and financial resources to meet the requirements of the Safety Management Plan and associated programs.

### 4.2.2 SENIOR MANAGEMENT (OPERATIONS MANAGER) – IS RESPONSIBLE FOR:

- Communication to the Board of Directors of all HSE matters to enable the board to discharge its responsibilities listed above.
- Developing, Endorsing and Promoting HSE Policies in the workplace.
- Monitoring workforce compliance with this HSE Plan.
- Promoting communication on safety issues to and from the workforces.
- Allocation of resources as approved by the Board to ensure adequate HSE performance and compliance as outlined in this HSE Plan.
- Ensuring that all Supervisors have the skills and competencies to perform their duties and HSE responsibilities.
- Ensuring that all Supervisors understand their obligations as the most Senior Site based personnel and their responsibility as the designated 'Site Safety Manager' as described in the Queensland Petroleum & Gas (Production and Safety) Regulation 2004.
- Staying abreast of legislative and Client Safety requirements and ensuring these are communicated to the workforce.
- Ensure that operations have been adequately risk assessed and relevant controls identified to manage hazards and risks to a level as low as reasonably practicable.

### 4.2.3 SITE MANAGER -IS RESPONSIBLE FOR:

- Ensuring that each person who enters the site is given an appropriate site induction that enables that person to comply with all relevant HSE Policies, Procedures, Safety Management and Emergency Response Plans for the site and that the Induction is relevant to the work/visit that the person shall be undertaking whilst on site.
- Implementing and monitoring for compliance of all HSE Policy, procedures, and the Safety Management Plan for all site based operations.
- Promoting a safe working culture on site.
- Conducting risk assessments and producing site-specific procedures for review and endorsement of Senior Management.
- Monitoring employees' fitness for work and administering appropriate disciplinary procedures in relation to safety breaches.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 11 of 29

- Ensuring that all employees are properly supervised and trained to safely carry out their work.
- Ensure all site based Employees are provided with, and use the appropriate PPE and safety equipment provided, including first Aid equipment.
- Ensuring all equipment is fit for purpose.
- Ensuring that emergency procedures are in place and followed as per the HSE plan.
- Conducting site based Safety Drills and Emergency Response Drills to ensure all Employees understand and are competent at performing their designated roles in respect of Safety and Emergency drills.
- Conducting daily inspections and maintaining the site in safe condition.
- Acting on any site safety issues as they arise and keeping Senior Management informed.
- Conducting regular Toolbox Meetings and promote communication and feedback to both the workforce and Senior Management on all matters relating to operations and safety.

## 4.2.4 EMPLOYEES AND CONTRACTORS - ARE RESPONSIBLE FOR:

- Complying with all reasonable directions of the Site Supervisor and Site Manager and the HSE Plan.
- Their own safety and for those around them.
- Understanding, familiarizing themselves and comply with Safe Work Procedures and the HSE Plan.
- Seeking clarification on work instructions and requirements if unsure how to proceed with any task.
- Reporting, and immediately acting on any unsafe practices, unhealthy conditions and hazards as they are identified.
- Practicing safe work methods.
- Correctly using and maintaining all tools, equipment, plant and materials.
- Correctly using and maintaining all safety devices and personal protective equipment.
- Reporting all injuries, equipment damage and near miss incidents to their supervisor.

## 4.2.5 HSE MANAGER - IS RESPONSIBLE FOR:

- Review and update of the HSE Plan.
- Regular site visits as required by Senior Management to review compliance with the HSE Plan.
- Advising Senior Management on HSE responsibilities.
- Preparing formal audits of the HSE plan and advising Senior Management of necessary action plans.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 12 of 29

**4.3 HEALTH SAFETY & ENVIRONMENTAL DOCUMENTATION**

Huracan shall record and document HSE information via the following reporting mechanisms;

- Work/Well Site Safety Induction.
- Journey Management procedure and use of the Site Safety Board System.
- Daily Toolbox Meetings (Verbal at the beginning of each work shift) & Stepback.
- JSA documentation and Risk Assessment via approved Risk Matrix.
- Hazard identification and reporting procedure in HIRD (Huracan Incident Reporting Database).
- Use of the Wellsite Permit to Work System.
- Weekly Safety Meeting (documented).
- Site Supervisor (Site Safety Manager) documented Handover.
- Adherence to the requirements of this HSE Plan, Emergency Response Plan and Safe Work Procedures.
- Distribution of relevant Industry related Safety Alerts and Publications.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 13 of 29

## 5.0 IMPLEMENTAION OF PLAN AND MONITORING

### 5.1 KEY DEFINITIONS

**Accidental Release** - Any spill, leak, or other undesired loss (pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing) of hazardous substances, crude oil or produced water into the Environment.

**Compliance** - Compliance is defined as adherence to applicable environmental laws and regulatory requirements, client requirements, or Huracan requirements. If a discrepancy exists between any of these three requirements, compliance shall be with regards to the more stringent requirement(s).

**Hazardous Air Emissions** - These are defined as hazardous substances, including gases or particulates (for which Huracan is responsible) released into the air. Hazardous air emission sources at Huracan include, but are not limited to: developers, fixatives, paint guns and booths, degreasing vats, cement bulk plants, engine exhausts, sand blasting operations, etc.

**Hazardous Substance** - A Huracan Recognized Hazardous Substance is any material, chemical or waste (for which Huracan is responsible), classified as hazardous by local environmental laws or regulatory requirements. In the absence of such local environmental laws and regulatory requirements, refer to the hazard identification section of the appropriate MSD Sheet, or to hazard definitions within the Basel Convention.

**Plan or Program** - Where this document requires that a plan, or program be established and maintained, that plan or program will be documented using lists, process charts, tables and other materials as appropriate so as to allow users, and auditors, to understand and assess the effectiveness of the plan or program

**Real Estate Transaction** - A transaction may be an acquisition (including purchase, lease, sublease or other written legal instrument) or divestiture (including sale, sub-lease, or other written legal instrument) of real estate. Such transactions may be stand-alone, or part of a larger business acquisition or divestiture.

**Real Estate Material Change of Use** - A material change of use means a change to a site that may have a material effect on the environment. This could include, for example, moving the location of hazardous substance storage, significantly increasing or decreasing air emissions or water discharges, adding, removing or changing tenants located on the site, constructing or altering plant or buildings.

**Site** - A site may be any land location, marine vessel, or rig;

- a) Where Huracan provides services and conducts operations under its direct control or influence,
- b) Where Huracan manages operations or projects for clients under Huracan direct control or influence, or

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 14 of 29

- c) Occupied (or planned to be occupied) by Huracan whether leased, owned, or co-inhabited with other entities.

Any entity that meets one or more of these requirements is considered to be an environmental site for the purposes of this document. A node in HIRD must be selected to represent this site, and that node must have the environmental site attribute set to yes.

Any site that meets all of the following criteria is considered to be a low risk site. Low risk sites are not subject to the environmental assessment requirements of this document.

- The site is not associated with manufacturing or field operations
- The site does not store articles or substances for use in manufacturing or field operations
- The site is not involved with equipment repair and, or maintenance operations
- The site has no requirement to obtain environmental permits under local regulations
- The site is leased (Note that owned sites do not meet the criteria to be considered low risk)

**Site Manager** - the person responsible and accountable for the site, which is typically the highest-ranking line manager present.

**Spill (Huracan Recognized)** - Any undesired loss of primary containment of a hazardous substance (for which Huracan is responsible), irrespective of the quantity recovered or of the presence of an impermeable secondary containment.

**Waste – Huracan Waste** - Huracan Waste is any material (solid, liquid, gas or mixture) discarded from Huracan activities including manufacturing, laboratory, cafeteria, office or other business related activities for which Huracan has direct responsibility.

**Waste – Client Waste** - Client Waste is any material (solid, liquid, gas or mixture) discarded from client operations (upstream oil and gas production, manufacturing, laboratory, cafeteria, office or other business related activities) for which the client has direct responsibility under law, or by contract. Waste generated from materials that were once Huracan products purchased by clients are wastes for which the client has direct responsibility. Huracan may handle client waste on behalf of a client, but the ultimate responsibility remains with the client.

**Waste – Client Waste Managed by Huracan** - Client Waste Managed by Huracan is any client waste for which Huracan has assumed responsibility by contract.

**Wastewater Discharges** - includes used water coming from homes, communities, camps, bases, well sites and Huracan industrial operations. Wastewater includes both sanitary (domestic) sewage and industrial wastewater.

## 5.1 GOALS AND PERFORMANCE OBJECTIVES

All sites shall establish and maintain an up-to-date list of environmental goals and performance objectives, which shall be consistent with this document, the site's significant environmental hazards and risks, environmental laws and regulatory requirements, and other appropriate requirements. These goals and objectives shall be specific to the site. Certain attributes in HIRD may need to be set

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 15 of 29



in order to properly track results versus these objectives. Managers must ensure that the attributes for their site are correctly set.

### 5.1 LISTS & RISK ASSESSMENTS

All sites shall keep up-to-date the following lists and risk assessments:

#### 5.1.1 RISK ANALYSIS

A documented environmental risk assessment (JSA) is to be performed for each Huracan site.

#### 5.1.2 LEGAL AND OTHER REQUIREMENTS LIST

This is a list of environmental laws and regulatory requirements, and other requirements as applicable to site operations. Any local environmental permits shall be available on-site at all times.

#### 5.1.3 OPERATIONS AND ACTIVITIES LIST

This is a list of all activities on, or associated with that are regulated by environmental laws and regulatory requirements, and of all significant environmental hazards and risks.

### 5.2 PLANS

Site-specific plans shall be established and maintained. These shall include designation of responsibility, environmental goals and performance objectives, and the means and time frame for achieving environmental goals and performance objectives.

#### 5.2.1 WASTEWATER DISCHARGE MANAGEMENT PLAN

All sites with wastewater discharges under their direct control or influence shall establish, implement, assign responsibility for and communicate a documented Wastewater Discharge Management Plan in order to prevent pollution to the soil, groundwater and all water bodies. Assistance in establishing and maintaining this plan can be found in the Wastewater Management Guidelines. The plan shall require:

(a) Industrial wastewater discharges to be monitored (sampled, analysed, and evaluated) in accordance with local and country specific regulatory requirements and reported in HIRD. In the absence of such regulatory requirements or in case local monitoring requirements are below Huracan requirements, industrial wastewater discharges will be sampled and analysed according to the Huracan Industrial Wastewater Discharge Sampling and Analysis Guidelines and must meet the quality requirements described in those guidelines and in Appendix 5.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 16 of 29

(b) Identification of wastewater discharge points, into which water body these discharges flow, the local uses of the water body, and their potential effect of the discharge on the environment.

The requirement for wastewater discharges to meet regulatory and Huracan requirements shall be applied as described in Table 1:

**Table 1: Wastewater Discharge Testing Requirements**

Type of Discharge	Receptor	Applicable Standard
Storm water	All	Local regulatory standard where applicable
Sewage (sanitary)	All	Local regulatory standard where applicable
Industrial (wash / process) water	al (or similar) system with treatment plant	Local regulatory standard where applicable
Industrial (wash / process) water	Municipal (or similar) system <b>without</b> treatment plant	Huracan standard or local regulatory standard, whichever is more demanding
Industrial (wash / process) water	Surface water body or land	Huracan standard or local regulatory standard, whichever is more demanding

## 5.2.2 HAZARDOUS AIR EMISSIONS PLAN

All sites with the potential for hazardous air emissions, under their direct control or influence, shall establish, implement, assign responsibility for and communicate a documented Hazardous Air Emissions Plan in order to prevent, mitigate or minimize hazardous substances from entering into the air. Assistance in establishing and maintaining this plan can be found in the Air Emission Management Guidelines. The plan shall require that all potential hazardous air emission sources (chemical as well as particulate) to be identified, listed, and if required, to be estimated and, or monitored. The plan does not need to include transportation exhaust emissions.

## 5.2.3 WASTE MINIMIZATION AND MANAGEMENT PLAN

All sites with waste management under their direct control or influence shall establish, implement, assign responsibility for and communicate a documented Waste Minimization and Management Plan in order to minimize the impact of Huracan waste on the environment. The program shall require:

- (a) Avoidance of the use of hazardous substances prohibited by local environmental laws and regulatory requirements or by Huracan business segments

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 17 of 29

- (b) A comprehensive list of all waste streams and wastes generated; the process generating the waste; the hazardous nature of the waste; the quantity and frequency of wastes generated; the current waste management and storage methods; source reduction and recycling options and plans to achieve continual reduction in waste quantities and continual increases in recycling and reuse of waste materials; the available disposal options; and the ultimate disposal location of all waste generated
- (c) Documentation of periodic evaluations of all waste recycling and disposal sites used
- (d) Documentation of all off-site recycling and waste disposal activities.

## 5.2.4 SPILL PREVENTION AND CONTROL (SPC) PLAN

All sites shall establish and maintain a written SPC Plan if hazardous substances are used or stored on the site, or if required by environmental laws and regulatory requirements. The SPC Plan shall address pollution prevention by identifying potential spill scenarios and developing procedures to prevent and control them. The template for a generic Spill Prevention and Control (SPC) Plan shall be modified to address specific site environmental risks, local environmental laws and regulatory requirements, and, or client requirements. Note that an Emergency Response Plan (ERP) is not a substitute for a SPC Plan. All sites shall be fully prepared to respond to any environmental emergency and shall do so by ensuring environmental considerations are fully incorporated into their ERP.

## 5.2.6 ADDITIONAL PLANS

All sites shall establish and maintain additional documented plans to achieve environmental goals and performance objectives as deemed necessary by site management.

## 5.3 PROGRAMS

Site-specific programs shall be established and maintained. Programs shall include designation of responsibility, environmental goals and performance objectives, and the means and time frame for achieving environmental goals and performance objectives.

### 5.3.1 HAZARDOUS SUBSTANCE MANAGEMENT & STORAGE PROGRAM

All sites where hazardous substances are used or stored shall establish, implement, assign responsibility for and communicate a Hazardous Substance Storage Program in order to prevent pollution to the soil, groundwater, and all water bodies. Assistance in establishing and maintaining this program can be found in the Hazardous Substance Storage Procedures. The program shall require:

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 18 of 29

- (a) All hazardous substance storage areas to be equipped with secondary containment capable of holding, at a minimum, 110% of the largest container
- (b) Periodic visual inspection to ensure integrity. Process sumps or containment structures constructed with sumps shall be integrity tested at least annually
- (c) All hazardous substance storage tanks to be on the surface
- (d) All piping for hazardous substances to be on the surface where practicable. If underground piping is required, it shall be tested annually to ensure integrity

To further manage risks associated with the use of hazardous substances, the storage requirements described in the product MSDS and the usage requirements described in the MSDS must be implemented, and diesel should never be used as a cleaning agent.

## 5.3.1.1 CHLORINATED SOLVENTS

To minimize the risks associated with the use of chlorinated solvents, the following requirements shall apply:

- (a) Chlorinated solvents shall never be purchased, stored, or used for the purpose of cleaning equipment
- (b) If chlorinated solvents are required for laboratory, manufacturing, or calibration purposes, the site will perform a site-specific and process-specific risk assessment (JSA). This JSA will include measures to address: substitution of; purchase of; access control to; storage of; use of, disposal of; and containment of chlorinated solvents
- (c) The JSA will be reviewed annually, and will as a minimum consider opportunities for substitution or elimination of the requirement for the use of chlorinated solvents

## 5.3.2 ENVIRONMENTAL PERFORMANCE PROGRAM

Site Managers shall monitor, and measure performance against and communicate their environmental goals and objectives. Therefore, all sites shall:

- (a) Enter in HIRD, using the correct templates and categories as applicable, all environmental performance indicator data, environmental assessments and self-assessments, and legal compliance assessments
- (b) Document (preferably in HIRD) a review, at least annually, of performance against their site-specific environmental goals and performance objectives
- (c) Establish and maintain a procedure(s) to monitor, measure, and verify the data quality of the required environmental performance indicator data, as well the as the data obtained from their operations and activities, which is used to report performance against their site-specific environmental goals and performance objectives

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 19 of 29

- (d) Implement a program to calibrate monitoring equipment, and maintain calibration records where the absence of such calibration could lead to non-compliance with this document, as well as deviations from the site's environmental goals and performance objectives
- (e) Periodically review data for compliance with environmental laws and regulatory requirements, as well as for compliance with this document and the achievement of environmental goals and performance objectives.

## 5.3.3 SUPPLY CHAIN MANAGEMENT PROGRAM

All sites shall manage contractors and suppliers and shall implement and document a program to:

- (a) Ensure requirements related to local environmental laws and regulatory requirements and significant environmental hazards and risks are integrated into all phases of contractor and supplier management
- (b) Minimize waste with product take-back agreements with vendors where feasible
- (c) Reduce hazardous waste by seeking opportunities to purchase fewer hazardous substances.

## 5.3.4 PRODUCT LIFE CYCLE MANAGEMENT

Environmental requirements shall be incorporated into new and modified products, services, and processes in order to protect the environment, prevent pollution, minimize environmental impact, and comply with laws, regulatory requirements, and client requirements.

During the development of new Huracan products and equipment, shall:

- (a) Clearly identify environmental risks and subsequently design products and equipment to minimize those risks throughout the life cycle: initial product concept; feasibility studies; design; development; manufacturing; field-testing; operations; sustaining; and obsolescence including the preferred end- of-life risk mitigation solution
- (b) Avoid the use of hazardous substances and consider using alternative chemicals whenever practicable during product and service development, and project management
- (c) Focus on engineering solutions when a product or service delivery system requires protection and prevention controls. When engineering solutions are not possible, special operational procedures shall be prescribed.

Furthermore, when new or modified products are introduced for use in their operations, all Site Managers shall designate an individual who must:

- (d) Ensure that the new product or service is reviewed for compliance with this document

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 20 of 29

- (e) Bring up-to-date all appropriate lists, plans, programs, procedures, training and record keeping
- (f) Implement appropriate risk mitigation solutions prior to the introduction

## 5.3.5 ENERGY AND WATER CONSERVATION PROGRAM

All sites where the consumption of energy and water is in under their direct control or influence shall establish, implement, assign responsibility for and communicate an Energy and Water Conservation Program in order to minimize Huracan's impact on the environment.

## 5.3.6 ADDITIONAL PROGRAMS

All sites shall establish and maintain additional programs to achieve environmental goals and performance objectives as deemed necessary by site management.

## 5.4 PROCEDURES

Sites shall implement the following procedures

### 5.4.1 REAL ESTATE - TRANSACTIONS

Real estate transactions can have significant environmental consequences. When real-estate is being acquired or leased, the responsible Huracan individual shall take all reasonable steps to prevent the acquisition, or entry onto of sites with prior contamination. When real estate is being divested or exited, the responsible Huracan individual shall ensure there is a reasonable understanding of the site's environmental condition prior to release. The individual responsible for executing a real estate transaction (purchase, lease, occupation, sale or release) shall:

- (a) Notify the Huracan Director of the pending transaction
- (b) Complete either the Preliminary Acquisition Checklist prior to purchase, lease or occupation or the Environmental Exit Survey prior to sale or release (whether leased, owned, or otherwise occupied), as appropriate.
- (c) Submit the completed checklist for external review and preparation of a complete assessment of the site
- (d) Submit the completed assessment to the Director and determine if additional assessment actions such as environmental impact assessments, soil sampling, or groundwater sampling.

### 5.4.2 REAL ESTATE - MATERIAL CHANGE OF USE

Changing the use of a site can alter the potential for adverse environmental impact and may require alterations to environmental permits, licenses, authorizations or other regulatory approvals or exemptions. Therefore:

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 21 of 29

- (a) A Site Manager shall follow the management of change procedure when making a material change to the use of a site
- (b) The Site Manager shall notify the Director of the change of use
- (c) Ensure that the Change of Use is reviewed for compliance with this document.
- (d) Bring up-to-date all appropriate lists, plans, programs, procedures, training and record keeping.
- (e) Implement appropriate risk mitigation solutions prior to the introduction.

## 5.4.3 ENVIRONMENTAL EVENT, INSPECTION, AND ASSESSMENT REPORTING

**Table 2: Environmental Severity Loss Matrix**

Loss Category	Light	Serious	Major	Catastrophic
Total \$ Loss Client + Huracan	≥ 1\$K < 10 \$K	≥ 10 \$K - < 100 \$K	≥ 100 \$K - < 1000 \$K	≥ 1000 \$K
Hazardous Substance Spill Volume <sup>3</sup>	< 100 lts	≥ 100 lts - < 1,000 lts	≥ 1,000 - < 10 Klts	≥ 10 Klts
Crude Oil Spill Volume <sup>3</sup>	< 1,500 lts	≥ 1,500 lts - < 10 Klts	≥ 10 Klts- < 150 Klts	≥ 150 Klts
Produced Water Spill Volume	< 10,000 lts	≥ 10 Klts - < 50 Klts	≥ 50 Klts - < 100 Klts	≥ 100Klts Barrels
Accidental Releases	Below regulatory or client reporting limits <sup>4</sup> ; Toxic substances not involved; Cleaned-up within 24 hours	Multiple light <sup>5</sup> ; Above regulatory or client reporting limits ; Toxic substances involved	Multiple serious <sup>5</sup> ; Contaminated groundwater; Fines and penalties; Area evacuation and/or wildlife loss; Permit revocations	Multiple major <sup>5</sup> ; natural resource damages; Uncontrolled release causing loss of life

### Notes to Table 2

- 1 Categorize the severity using the highest (most stringent) criteria
- 2 Reputation and Service Delivery severity loss criteria for all events, including environmental events.
- 3 Crude oil and produced water reporting are only required for operations where well sites or E&P projects are managed for clients.
- 4 When categorizing severity with regulatory or client reporting limits, use the limit which is the most stringent.
- 5 Five or more similar unplanned releases at the same location in the same year

Reporting of environmental events, inspections, assessments and audits is fully integrated into HIRD, the Huracan incident reporting database. Huracan recognizes three types of reportable spills: those

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 22 of 29



involving either hazardous substances, or crude oil, or produced water. For the purposes of internal Huracan reporting, refined petroleum products such as motor oil, kerosene and petrol are to be categorized as hazardous. Crude oil is not to be reported in the hazardous substance category. The severities of environmental incidents are defined in Table 2.

## 5.4.4 OPERATIONAL PROCEDURES

All sites shall:

- (a) Establish and maintain documented procedures for their operations and activities where the absence of such procedures could lead to non-compliance with the Huracan QHSE Policy, and this document, as well as deviations from the site's environmental goals and performance objectives. Operations and activities subject to procedures have been listed in section 5.1.3 Operations and Activities
- (b) Communicate relevant procedures to employees, suppliers and contractors.

## 5.5 TRAINING

All sites shall:

- (a) Appropriately train all employees performing tasks, which have significant environmental hazards and risks, and, or may significantly impact the achievement of environmental goals and performance objectives
- (b) In addition to the implementation of environmental training requirements and programs, identify further training needs and set training requirements as required. These needs & requirements may include specific competence programs (to ensure operations are conducted so as to protect the environment) and site-specific requirements associated with local facilities and procedures.
- (c) Periodically review training needs and requirements, revise as necessary, and approve for adequacy by appropriate personnel.

## 5.6 COMPLIANCE MONITORING

All sites shall undergo environmental compliance assessments to verify compliance to applicable regulatory requirements and this document. Environmental compliance assessments shall be completed:

- Against this Huracan document within two months of commencing operations for newly acquired sites, and against regulatory requirements within twelve months of commencing operations
- At least every three years during operations

### Assessments

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 23 of 29



Compliance with the main body of this document shall be monitored by use of the Huracan's audit checklist available in HIRD. Self-Assessment shall be performed at least once every year.

### Inspections

Compliance with requirements stated in Appendices or accompanying documents will be monitored by use of the appropriate Inspection Checklist indicated in the Appendix or Guideline, or in the case of legal compliance inspections, by country-specific checklists.

### Remedial Work Plan

Remedial Work plan (RWP) from assessments and inspections shall be recorded and tracked to closure in HIRD.

### Management Of Change

For situations that lead to non-compliance of the Assessments to this document the associated risks will be managed using the MOC process.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 24 of 29

**6.0 ENVIRONMENTAL INCIDENT MANAGEMENT**

In the event of an Environmental incident, Huracan Management requires personnel to immediately report the incident to their supervisor.

The Site Supervisor shall notify Huracan Senior Management within one (1) hour after any incident involving an injury that requires medical treatment via the Incident Flash Report Form.

A full incident investigation shall be conducted and a Hazard/Incident/Near Miss Report completed. Huracan Senior Management shall then notify regulatory authorities **(as per the requirements of the Queensland Petroleum and Gas (Production and Safety) Regulations 2004)**.

In the event of a serious environmental incident, written signed and dated statements shall be recorded as soon as practical following the incident.

The original copy of any statement shall be attached to the original copy of the Hazard/Incident Report and duplicate copies distributed to the client as soon as practicable.

Those involved (if their condition permits) shall be interviewed regarding specific details leading up to the incident. Each statement shall be accurately recorded and signed as a true and correct record and witnessed.

Unless further danger exists, any serious incident scene shall not be disturbed until the required drawings and/or photographs are recorded and any relevant investigators (Police, Government Inspectors, etc) have attended the scene.

The Site Supervisor shall make arrangements with the Client for the provision of emergency assistance.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 25 of 29

## 7.0 CONTRACTORS

Huracan Management shall perform appropriate pre-qualification assessments long term (greater than 3 months) Contractors to ensure that Contractors work policies, systems and safety management plans align with those of Huracan.

Only contractors assessed as having adequate plans and systems shall be engaged in Huracan operations.

Where a Contractor is regarded as a 'Major' Contractor then the following is required:

- Safety management plan and policies.
- Historical LTI and MTI performance indicators.
- Internal and external audits of management systems.
- Operating and maintenance records for relevant plant.
- Training and qualification records of relevant personnel.
- Third Party Contractor SMP to ensure integration with Huracan plans.

Where a Contractor is regarded as a 'Minor' Contractor then the Contractor shall be obligated to comply with all aspects of Huracan's HSE procedures and systems as outlined in this document.

A register of preferred Contractors is maintained by Huracan.

Contractors who subsequently fail to meet the relevant commitments of Huracan's Health, Safety and Environmental performance requirements shall be removed from the preferred list of Contractors.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 26 of 29

**8.0 EMERGENCY RESPONSE**

The Huracan Emergency Management Plan (ERP) details responsibilities, procedures, reporting requirements, training and the resources necessary to ensure effective and timely management of emergencies during Huracan operations.

The ERP shall detail procedures for medical evacuations, chemical and oil spills, containment of hydrocarbon release, fire, equipment damage and general emergencies. The ERP shall also be reviewed to ensure that it bridges adequately with Client ERP's.

The ERP details the following information;

- Roles and Responsibilities of supervisory personnel on site and in Head Office in Roma.
- Procedures to deal with emergencies affecting personnel, equipment, the environment, and contractors.
- Describes the external resources available to the Company for use in an emergency and how these resources shall be contacted.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page 27 of 29

## 9.0 STATUTORY ACTS & REGULATIONS

The Huracan SMP encompasses compliance requirements to but not exclusively the following legislation and Australian Standards. Click on relevant title for the document link. Please check for [repealed legislation](#) prior to review of the relevant document.

In particular:

- [Petroleum & Gas Act 2004](#)
- [Petroleum & Gas \(Production and Safety\) Regulations 2004](#)
- [Work Health & Safety Act 2011](#)
- [Work Health & Safety Regulation 2011](#)
- [Workers' Compensation and Rehabilitation Act 2003](#)
- [Workers' Compensation and Rehabilitation Regulation 2003](#)
- [Australian Standards.](#)
- [Work Health & Safety \(Codes of Practice\) Notice 2011](#)

These Acts & Regulations impose a **“Duty of Care”** on all employers and employees.

Document Control	Responsible Dept	Document Number	Status	Rev Date	Next Review	Page
HSE Management	HSE	EnvMP_Rev1.2	Active	11-May-2017	10-May-2019	Page <b>28</b> of <b>29</b>