

SHEMS

Environmental Management Plan

Turn Around Support Centre (TASC)

SHEMS-QE-07-PLN-TASC-0005
Version 2.0

Version control

Version	Change from previous	Date	Comment
1.0	New Plan	10/11/2021	
2.0	Scheduled review. -To include listed waste storage -Updated titles and names -Formatting and grammar	09/05/2023	

Authorised

Name	Position	Date
Teagan Peck	Contract Manager	09/05/2023

Abbreviations

AQIS	Australian Quarantine and Inspection Service
AS	Australian Standards
DAFF	Australian Department of Agriculture, Fisheries and Forestry's
DOSB	Darwin Onshore Supply Base
EMP	Environmental Management Plan
NGERA	National Greenhouse and Reporting Act 2007
NTEPA	Northern Territory Environmental Protection Authority
QE	Qube Energy
SHSMS	Safety Health and Sustainability System
SHSMP	Safety Health and Sustainability Plan
TASC	Turn Around Support Centre

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1. Introduction

This Environmental Management Plan (EMP) has been prepared to describe how Qube Energy (QE) proposes to manage the environmental impact of operations at the Turn Around Support Centre (TASC).

In line with the QE Environmental Management Policy the objectives of the EMP are:

- To ensure that the environmental impact of our operations are minimised;
- To ensure compliance with relevant environmental legislation and other requirements;
- To implement the QE Safety, Health and Sustainability Management System (SHSMS);
- To capture and investigate environment incidents and non-conformance for investigation and continuous improvement;
- To sustain our environment by continually improving our environmental performance and to strive for best practice in environmental management; and
- To provide adequate training on environmental awareness at all levels.

The EMP has been developed in accordance with the Qube Corporate Environmental Management Framework and aligns with the requirements of *AS/NZS ISO 14001: Environmental Management Systems - Specification with Guidance Notes for Use*.

The EMP is to be used as a "tool" by all personnel who have duties at the site which have the potential to impact on the environment, or which are controlled by environmental laws or regulations.

2. Scope

This EMP applies to all operations, employees and contractors of QE at TASC.

2.1 Facility Location and Description

TASC is located at 8 Mendis Road, East Arm, Northern Territory, Australia. 0822. (Figure 1)

Located in the prime port precinct of East Arm, the property comprises an 18,000 m2 allotment which is fully paved providing extensive hard stand, road train access and abundant parking.

To the rear of the main office there is a 1470m2 open plan high clearance warehouse with a series of five roller doors. To the side of the warehouse is a 900m2 canopy.

The support centre is powered by Jacana Energy. No back up generator is present on site currently.

Wastes generated at facilities include:

- General Waste
- Hazardous Waste (Oil, liquid and solids)



**8 Mendis Road East Arm 0820 NT
Turn Around Support Centre**

Figure 1: Site Map – TASC

This EMP is designed to ensure compliance with Commonwealth, State and Local Council requirements pertaining to the management of QE's environmental issues such as waste management, emissions and other environmental impacts.

The scope of work undertaken by QE includes the following activities:

- Warehouse & Open Storage
- Receiving & Consolidation of Goods & Materials
- Labour
- Cranes, forklifts, heavy vehicles
- Waste Management (temporary storage of offshore waste)
- Offshore Warehouse Management

3. Objectives and Targets

TASC has established a set of objectives and targets for environmental performance at the site. Objectives and targets are based on the identified significant environmental aspects and align with the Qube Corporate SHSMP and Business Plan.

Objectives and targets are set by the QE General Manager in consultation with the [Contracts Manager and SHS and CI Manager](#).

4. Environmental Aspects and Impacts

Environmental Aspects and Impacts are included in the site Risk Register which has been prepared in accordance with the Qube corporate Environmental Aspects and Impacts Identification Procedure [SHSMS-QH-06-PR-015](#).

The significant environmental Aspects and Impacts identified at the site are as follows:

- Accidental release of hazardous material
- Ignition of hazardous material
- Contaminated wastes
- Hazardous substances in transit
- Hazardous substances use and storage
- Noise created by QE workplace activities
- Dust emissions as a result of QE workplace activities
- Exhaust smoke emissions from site vehicles and plant (mobile)
- Litter control
- Recycling and reuse of waste
- Maintaining site electrical consumption to as low as practicable
- Contaminated waste water
- Transportation of site particulates with Storm water discharge
- Risk of plant or equipment fire
- Risk of fire of goods in transit

5. Qube Environmental Legal Obligation List (NT)

The Australian Government, state and territory governments, and local governments jointly administer environmental protection. The Northern Territory environmental protection legislation applies to specific business activities conducted at the TASC. In the event of any conflict between any QE Procedures, operational activities and applicable legal and regulatory requirements, the applicable legislative and regulatory requirements will take precedent.

All work performed at the TASC shall be conducted in compliance to the following but not an exhaustive list.

NT Environment Protection Authority

- [Environmental Protection Licence XXXX](#)

Legislation

- Northern Territory Environment Protection Authority Act 2012
- Waste Management and Pollution Control (Administration) Act 1998
- Marine Pollution Act 1999
- Waste Management and Pollution Control (Administration) Regulations 1998
- Water Supply and Sewerage Services Act 2000
- Wildlife and Conservation Act 1950
- Environmental Protection Biodiversity Conservation Act 1999
- Waste Management and Pollution Control Act 1998
- Waste Management and Pollution Control (Administration) Regulations 1998
- National Environment Protection (Movement of Controlled waste Between States and Territories) measure 2012
- Public Health (Nuisance Control) Regulation
- Efficiency Opportunities Act 2006 (Commonwealth)
- Motor Vehicles Act (Motor Vehicles (Standards) Regulations: visible emissions, Noise)
- National Greenhouse and Reporting Act 2007 (NGERA)

Australian Standards:

- AS/NZS ISO 14001 Environmental Management System
- AS/NZS 3500.1:2003 – Plumbing and Drainage-Water Supply
- AS/NZS 2845.1:1998 – Water Supply

Shell:

- Scope of Works
- ISO Certification

Legal requirements applicable to TASC are managed and maintained in accordance with the [SHSMS-QH-02-PRO-004 Legislative and Regulatory Obligations Requirement](#).

QE subscribes to an online Environmental Legal Obligations Directory which is accessible via the Qube Intranet.

6. Implementation and Operation

6.1 Roles and Responsibilities

All QE employees are responsible for the maintenance of high environmental standards. Position descriptions are used to specify and communicate these responsibilities to QE personnel. The specific responsibilities for implementation of this EMP are described below.

Title	Reports to	Responsibility
Contract Manager	General Manager – Qube Energy	<ul style="list-style-type: none"> Participate in Management Review process Report to board on environmental performance Commitment to implementation of the EMP Provide resources to implement the EMP Responsible for site environmental performance Implement the EMP Communicate environmental performance requirements to nominated personnel Identify environmental training needs Investigate environmental incidents and implement corrective actions Develop task specific environmental management procedures and work instructions
SHS Supervisor	Contract Manager and SHS and CI Manager	<ul style="list-style-type: none"> Report to management on the performance of the EMP Facilitate implementation of the EMP in the workplace Assist with provision of EMP induction training for new staff Establish and review aspects and impacts with site risk register Identify and communicate legal and other requirements Undertake environmental monitoring as required Undertake audits of the EMP Maintain and update EMP documentation and records Maintain emergency response management guidelines and monitor incidents. Assist with implementation of task specific environmental management procedures and work instructions Initiate and facilitate review and continual improvement process, including setting objectives and targets.
TASC Manager	Contract Manager	<ul style="list-style-type: none"> Facilitate implementation of the EMP and associated procedures Complete records Facilitate environmental training of appropriate personnel Report environmental incidents Maintain relevant waste disposal records in accordance with NT EPL XXXX
All Employees	TASC Manager	<ul style="list-style-type: none"> Understand and conduct activities in accordance with relevant aspects of SWMS/SWI by way of reading and understanding Comply with all Environmental aspects as communicated from SHEMS Procedures Know of and understand the Environmental Policy Report all environmental incidents and hazards

6.2 Environmental Objectives

To minimise potential impacts arising from TASC operational activities to the environment, both on and off site, and where possible improve the environmental values of the site.

QE will identify, assess and control those elements of our operation that impact on the environment. In line with sound business practice TASC, the following are the Environmental objectives and goals Table 2.

Table 2. Environmental Objectives, Targets & Responsibilities

Environmental Feature	Objectives	Target KPI's	Responsibility
Corporate Governance	<ul style="list-style-type: none"> Maintain an AS/NZS ISO 14001 Environmental Management System with the identification of QE environmental impacts and establishes responsibilities, objectives and targets, and mechanisms for reviewing environmental performance and improvement Maintain Shells Lloyd's Register, ISO certification in AS/NZS ISO 14001 Environmental Management System 	<ul style="list-style-type: none"> Achieve Re-Certification with no major non-compliances 	<ul style="list-style-type: none"> Contract Manager SHS Supervisor
Water	<ul style="list-style-type: none"> Implement initiatives that will reduce water use as a %, relative to the previous year Protect all-natural water courses from all hazardous material contamination/ingress 	<ul style="list-style-type: none"> 5% reduction per year No contaminated water courses 	<ul style="list-style-type: none"> Contract Manager SHS Supervisor Everyone
Soil	<ul style="list-style-type: none"> Spills are to be cleaned up and reported to ensure no egress to the land 	<ul style="list-style-type: none"> Nil impact 	<ul style="list-style-type: none"> Everyone
Biodiversity	<ul style="list-style-type: none"> Our operations will not impact on the environmentally significant areas such as Ramsar Wetland 	<ul style="list-style-type: none"> Nil impact 	<ul style="list-style-type: none"> Everyone
Cultural Heritage	<p>To comply with</p> <ul style="list-style-type: none"> relevant heritage legislation and manage the TASC with sensitivity to the traditional owners (Larrakia). Aboriginal Areas Protection Authority, appropriate land council or other governing body and ensure that any Authority Certificates required as a result of conducting the licenced activity are obtained and complied with as stipulated in the EPA licence. 	<ul style="list-style-type: none"> Nil impact 	<ul style="list-style-type: none"> Contract Manager SHS Supervisor Everyone
Air Quality and Emissions	<ul style="list-style-type: none"> To comply with State and Federal legislation relevant to air quality. 	<ul style="list-style-type: none"> Nil impact 	<ul style="list-style-type: none"> Contract Manager Senior SHS Supervisor

Environmental Feature	Objectives	Target KPI's	Responsibility
	<ul style="list-style-type: none"> Minimise pollution and consumption of fuel through on time maintenance schedule of the fleet 		<ul style="list-style-type: none"> Everyone
Noise	<ul style="list-style-type: none"> To minimise ground-based noise and comply with relevant legislative requirements through noise monitoring when changes in operations occur. 	<ul style="list-style-type: none"> Zero Noise Complaints Noise readings within legislative requirements 	<ul style="list-style-type: none"> Contract Manager Senior SHS Supervisor Everyone
Training	<ul style="list-style-type: none"> Environmental Awareness training and job specific training on environmental issues where required 	<ul style="list-style-type: none"> Training Compliance 	<ul style="list-style-type: none"> Contract Manager Senior SHS Supervisor

6.3 Training and Awareness

QE employees at all levels are provided with training in order to enhance their understanding of environmental issues and the impact which they and their work may have on the environmental performance of the facility. Such training is provided at the employee induction stage.

The training encompasses the following topics:

- Environmental Management Policy
- Relevant operating procedures, safe work method statements and safe work instructions
- Roles and responsibilities in achieving conformance with the EMP
- Emergency preparedness and response

Additional environmental training will be identified and undertaken for employees whose tasks may have a direct impact on a significant environmental aspect.

6.4 Communication

Environmental communications shall be undertaken in accordance with the Qube [Consultation and Participation of Workers Procedure SHSMS-QH-09-PR-019](#).

The main methods of communications within the site are:

- Tool box talks
- SHSMP Noticeboard
- SHSMP Intranet
- Incident reporting system
- Company and Site Inductions

All media enquiries shall be directed to the Contract Manager.

7. Site Specific Mitigation Measures

7.1 Air Quality

QE will ensure that its activities do not impact on environmental air quality on sites under its control. QE will also ensure that activities on site do not adversely affect the environmental air quality of surrounding sites.

Air emissions may be generated from the following sources/activities:

- Vehicle exhausts
- Atmospheric particulates from Plant cleaning

If applicable - QE will comply with all emission limits of any site Environmental Protection Licences

Air emissions as a result of plant and equipment Contract Manager onsite are controlled by scheduled maintenance and servicing. Scheduled, as well as unplanned maintenance is managed using the MAINPAC Maintenance Management System.

QE's contractor management selection shall ensure that contractors are advised of requirements to have vehicles comply with prescribed standards or maximum permissible concentrations of emissions of the Motor Vehicle Act, Motor Vehicle (Standards) Regulations or other legislative requirements.

7.2 Water Discharges

Water discharge may be generated from the following source:

- Stormwater run-off
- Emergency Fire Hose discharge
- Failed containment or transfer system of contaminated waste water.

QE will comply with all emissions limits in the Environmental Protection Licence / Permit / Agreements.

These emissions as far as reasonably practicable will be controlled by inspection of containment systems, Fire management and ER procedures, the provision of portable 'Kitty litter' spill kits. Drain covers (socks) shall be utilised to ensure rain water and the run off of contaminants such as oils shall be utilised during the months of October to April.

Inspection of drain covers (socks) shall be undertaken by external contractor to ensure suitability and effectiveness.

QE SHSMP and emergency response are intended, as far as reasonably practicable, to identify potential system failures and manage outflow to mitigate environmental harm.

Waste avoidance and reducing generation at source is a key consideration for TASC.

Promote reduction in waste generation and reuse/recycle materials where possible.

Not reuse, recycle, use as a source of energy, store, transport, treat or reprocess waste in any way or form that may result in an unfavourable environmental impact.

Not establish any waste/refuse dump or other solid or liquid waste disposal on site.

Ensure that all regulated waste transported from the site is done so in a licensed vehicle and disposed at a suitably authorised facility.

Ensure prescribed waste is transported from site by an appropriately licensed waste transporter.

Ensure prescribed waste certificates are issued for all transport off site and are held by the relevant manager.

7.3 Approvals, Licences and Permits

The following approvals and licences pertain to the operation of the TASC Facility and Scope of Work:

- **Qube Ports Pty Ltd Licence EPL 245 (transport only)** issued by the Northern Territory Environment Protection Authority version date 18/06/2018 (renewal date 17/06/2023)
- **Qube Energy Pty Ltd Licence EPL XXX (storage only)** issued by the Northern Territory Environment Protection Authority version date XX/XX/XX (renewal date XX/XX/XX)
- **Notification of schedule 11 hazardous chemicals** issued by QE to NT WorkSafe. A requirement for storing a large amount of Puraspec and listed waste on site.

QE will update licence details when changes occur to ensure the contact details recorded in Northern Territory EPA Online for this licence are always correct.

QE will pay the annual fee calculated in accordance with the method prescribed in the Regulations within 50 business days of the anniversary of the commencement date of this licence, for each year or part of a year that this licence is in force.

Note: Notification of major hazard facility may be required issued by QE to NT WorkSafe. A requirement for exceeding 10% of the threshold quantities of hazardous chemicals listed within Schedule 15 under Regulation 536, 537 and 547 Work Health and Safety (National Uniform Legislation) Regulations 2011.

7.3.1 Puraspec and Spent Mercury Bed Catalyst Storage

Puraspec 1178 and Spent Mercury Bed Catalyst 3191 amounts are likely to remain at quantities exceeding 10 per cent but less than 100 per cent of the threshold during storage at TASC. The **Notification of major hazard facility** is used by the regulator to identify facilities that could be determined at an inquiry to be an MHF. Determination inquiries are relatively rare, and most below-MHF threshold facilities are administered under Chapter 7 of the WHS (NUL) Regulations. TASC will ensure to re-notify if the quantity of Puraspec 1178 and Spent Mercury Bed Catalyst 3191 increases to a level that exceeds the level previously notified to the regulator.

7.4 Early Surrender of Environmental Protection Licence

Any reports, records or other information required or able to be provided by the QE under this licence must be submitted to the NT EPA prior to the QE surrendering the licence.

If the date on which a report, record or other information is required falls after the date that QE requests to surrender this Licence, then QE must provide the report, record or information as far as possible using data available to the QE up to and including the date the request to surrender the licence is made

7.5 Amendments to Environmental Protection Licence

When it arises that the Northern Territory EPA requires QE to revise or amend and resubmit any amended document, this will be completed. Where the Northern Territory EPA requires a document to be resubmitted, then QE will submit it to the Northern Territory EPA by the date specified by the Northern Territory EPA.

7.6 Waste Management and Minimisation

Shell HSSE Clauses Part B “Waste “

Where required Safe Work Method Statements will be developed to define any waste management processes including the following:

- Promote reduction in waste generation and reuse/recycle materials where possible.
- Not reuse, recycle, use as a source of energy, store, transport, treat or reprocess waste in any way or form that may result in an unfavourable environmental impact.

- Not establish any waste/refuse dump or other solid or liquid waste disposal on site.
- Ensure that all regulated waste transported from the site is done so in a licensed vehicle and disposed at a suitably authorised facility.
- Ensure prescribed waste is transported from site by an appropriately licensed waste transporter.
- Ensure prescribed waste certificates are issued for all transport off site and are held by the TASC Manager.
- Retain waste tracking records for periods defined by applicable laws and the Group Records Management System.
- Report waste management parameters in line with applicable laws, and will submit records to the company of the mass of non-hazardous and hazardous wastes disposed.

Qube Energy Obligations:

QE will promote reduction in waste generation and reuse/recycle materials where possible.

QE will not reuse, recycle, use as a source of , store, transport, treat or reprocess waste in any way or form that may result in an unfavourable environmental impact.

QE will ensure that all regulated waste transported from the site is done so in a licensed vehicle and disposed at a suitably authorised facility.

Our goal is to ensure that the TASC generated waste material will be recycled, re-used, or otherwise diverted from direct landfill disposal. To accomplish this goal TASC intends to recycle and reuse as many types of waste products as possible.

The following waste will be recycled at TASC

- Plastic
- Aluminium
- Paper/Cardboard
- Batteries
- Printer cartridges
- Steel ferrous/nonferrous metals
- Timber.

Whenever practicable QE will ensure the following reuse and recycling systems apply in its production and delivery services. Recycle bins are supplied to assist in segregation of recyclable materials.

- Minimise printing and recycle un-used paper
- Encourage the recycling of drink containers
- Turn off air-conditioners and lights at the EOD
- Print in black and white

7.6.1 Listed Waste Tracking

A Waste Transport Certificate (WTC) is required for every movement of waste from the TASC site under Schedule B of the National Environment Protection (Movement of Controlled Waste Between States and Territories) Measure (Controlled Waste NEPM).

Controlled waste provider shall be utilised for the removal of waste generated at the TASC. The TASC shall maintain records of pickup activity undertaken when controlled waste is removed from site.

7.6.2 Licenced Regulated Waste Transport Provider

Qube Transport (operating under Qube Ports) is a licenced transport provider, for the collection and transport of wastes as stipulated in EPL 245-01, issued 18/06/2018 and renewal date 17/06/2023.

The requirements of this licence are managed by Qube Transport – NT Transport Manager.

7.6.3 Contractors Environmental Protection Approval or Environmental Protection Licence to Transport Regulated Waste Transport Provider

Additional contractors moving listed waste to or from TASC will be required to provide a copy of their Environmental Protection approval or Environment Protection Licence for conducting a schedule 2 activities under the Waste Management and Pollution Control Act 1998. Environmental Protection approval or environment protection licence is required under Part 5 of the Waste Management and Pollution Control Act 1998

7.6.4 Waste Tracking of Hydrocarbons

A Waste Transport Certificate (WTC) is required for every movement of waste from the TASC under Schedule B of the National Environment Protection (Movement of Controlled waste Between States and Territories) Measure (Controlled Waste NEPM).

WTC's enable tracking of controlled waste from the place of generation (TASC) to the place of storage or final disposal. The process ensures all parties are fully aware of the nature of the waste being handled and its associated hazards and provide accountability for the production, treatment and disposal-controlled wastes.

7.6.5 Qube Transport Engaged to Transport Listed Waste

When Qube Transport are engaged to transport listed waste as the licensee they must carry the following in the vehicle:

- Legible copy of this licence;
- Legible manifest of the load being carried;
- Spill response equipment; and
- For interstate transport, a waste transport certificate.

Listed waste it will be transported in a manner that ensures listed wastes do not escape, spill or leak from the transport vehicle at any time. All listed waste will only be delivered to a premises licenced under section 30 of the Waste Management and Pollution Control (Administration) Act 1998 to receive that listed waste.

As the licensee Qube Transport will comply with the National Environment Protection (Movement of Controlled Wastes between States and Territories) Measure.

7.6.6 Qube Energy Engaged to Store Listed Waste

When Qube Energy are engaged to store listed waste at TASC as the licensee they must ensure:

- Risk Assessment is to be complete to identify all hazards that may impact the people, environment and property involved in the storage;
- Ensure the sites Emergency Management Plan is current and accurate
- Adequate resources and trained personnel are available
- Spill response kits are serviced on a regular basis and are adequate;
- All relevant licences are current and applicable to the activity and

- All regulatory bodies are notified prior to the storage taking place i.e. NT EPA, NT Worksafe.

It will be stored in a manner that ensures listed wastes do not escape, spill or leak from the storage site at any time. All listed waste will only be delivered from a licenced transporter under section 30 of the Waste Management and Pollution Control (Administration) Act 1998 to deliver that listed waste.

As the licensee Qube Energy will comply with the National Environment Protection (Movement of Controlled Wastes between States and Territories) Measure.

7.6.6.1. Chain of custody documentation

The chain of custody documentation below must be completed in full, filed accordingly and be readily available for inspection and audit purposes.

Chain of custody documentation outlined below can be found in the referenced appendices:

- Vessel backload manifest – appendix 14.1
- MO 41 –appendix 14.2
- Truck Manifest – appendix 14.3
- Listed Waste Register – appendix 14.4
- QE Cart Note – appendix 14.5
- SDS – appendix 14.6

	Process step	Documentation	Responsibility	Document Storage Location
1	Preparing waste for transport from Prelude to Darwin Port	Vessel backload manifest, MO 41, SDS	Monadelphous	
2	Vessel transport to Darwin Port	Outlined above	Vessel operators	
3	Review and distribution of backload manifest to truck drivers	Vessel backload manifest, MO 41, SDS	QE DOSB Marine team	Shell SharePoint – Marine Logistics
4	Transport via truck from Darwin Port to TASC	Truck manifest, SDS	QE DOSB Marine team	Shell SharePoint – Marine Logistics
5	Storage at TASC	Listed Waste Register, SDS, EPL license	TASC Supply Base Manager	G Drive – QGC Prelude > DOSB > 014 TASC
6	Preparing for transport from TASC to disposal facility	QE Cart Note, SDS	TASC Supply Base Manager	G Drive - QGC Prelude > DOSB > 014 TASC
7	Distribution of QE Cart Note to Qube Transport Manager	Outlined above	TASC Supply Base Manager	G Drive - QGC Prelude > DOSB > 014 TASC
8	Transport via truck from TASC to disposal facility	QE Cart Note, SDS, EPL license	Qube Transport Manager	
9	Arrival at disposal facility	Waste receipt documentation, waste disposal documentation	Monadelphous, TASC Supply Base Manager, Disposal Facility Manager	

7.7 Dangerous Goods and Hazardous Substances

Hazardous Substance shall be risk assessed and have environmental and safety controls available to employees when required to be used.

Hazardous Substance shall be recorded in the SAP manifest system. A report will be generated weekly to show quantities of DG/HS onsite at that time. **Prostewart is a data management system used for all Shell materials that require a SDS sheet and the associated risk assessment. ChemAlert is a data management system used for all Qube Energy materials and consumables and the associated risk assessments.**

Hazardous Substance used by Qube will be stored in appropriate containers and provided with adequate secondary containment.

Hazardous substances storage segregations will be in compliance with relevant Australian Standards. **Employees are able to access the safety data sheets (SDS) for substances to be used using either Pro Steward or ChemAlert.**

The condition of storage containers and bunding is included within the Workplace Environmental Inspection SHEWI-14-DWN-0219

Spill kits will be inspected monthly by external contractor and replenished as required.

Goods in transit will be managed in accordance with the *Work Health and Safety (National Uniform Legislation) Act* with guidance from AS 3846-2005, The handling and transport of dangerous cargoes in port areas.

Plant Refuelling is to be undertaken within the TASC by External Contractors Fuel Storage handling and decanting and Diesel Refuelling of Mobile Plant or Equipment.

7.8 Noise Pollution

Qube and their subcontractors will undertake mobile plant risk assessments, including noise management, prior to moving any mobile plant or equipment onto site. Qube will ensure vehicle noise mitigation devices are maintained and repaired so the devices comply with prescribed standards of the Motor Vehicles Act, Motor Vehicles (Standards) Regulations or other legislative requirements. Pre-check inspections of equipment shall be completed prior to operation and any defects noted shall be reported immediately to the Shift Supervisor to assess and notify TASC Manager for rectification.

8. Emergency Preparedness

TASC has developed a Spill Response Procedure as part of the SHSMS-QE-07-PLN-TASC-034 Emergency Response Management Plan, describing the actions to be taken in the event of a spill of fuel, oil or other substance or item which may have an adverse impact on the environment.

The actions of an accidental release of **Puraspec (including Spent Mercury Bed Catalyst)** is defined within the is plan. Immediate actions to take on accidental release are also communicated via site inductions.

This appendage also details Qube 'Duty to Notify' as required by the *Waste Management and Pollution Control Act*, s 14

Qube facilities spill kits are externally inspected monthly.

Qube will ensure all employees and subcontractors are aware of the prime contractors emergency preparedness plan and procedures on site.

The emergency evacuation process, the emergency firefighting system and the emergency plans for spillage containment will be included in all site inductions.

Emergency response drills shall be held yearly in accordance with Qube Procedures. An Environmental Emergency Drill shall be conducted yearly between QUBE DOSB or TASC and recorded for its effectiveness.

8.1 Risk of Fire

Appropriate fire management controls, including trained personnel and fire fighting equipment identified as required by the *Fire and Emergency Act* for the Qube site's and the Australian Standards AS3745-2009 *Planning for Emergencies in Facilities*

SHS Management Plan SHEMS-QE-07-PLN-TASC-0001 and SHSMS-QP-07-PLN-TASC-0002 Emergency Response Management Plan for TASC will be available in case of an emergency.

If the loss of containment of an environmentally harmful substance or fire treatment water is believed to potentially flow into the harbour, as far as reasonable practicable every attempt must be made to prevent this outflow.

This could include bunding the area and blocking drains with loose dirt using available plant and equipment.

9. Audit, Inspections, Report and Review Schedules

Evaluation of compliance with the requirements of the EMP will be incorporated as part of the internal audit process and undertaken in accordance with the Qube SHS Management Systems Audit Requirement SHEMS-QH-10-PR-0065

An audit of the environmental system will be incorporated into the site safety audits undertaken by the SHS team. Should an environmental incident occur which has significant impact on the environment, including long term damage, a separate audit will be performed by an independent environmental auditor and provided to the client for review and appropriate actioning. Records of audits and monitoring will be kept in accordance with the Records Management Procedure SHEMS-QH-05-PR-0025 Records Management, Appendix B.

Audit/inspection/report	Frequency	Next due	Responsibility
Environmental Management Plan (EMP) DOSB and TASC	Annual Review	TBA	SHS Supervisor
Annual ISO 14001 Environmental Management systems	Annual audit	TBA By September 2023 external	SHS Supervisor
Aspects and Impacts Reviews (which is included in the overall DOSB & TASC Risk Register)	3-monthly	In accordance with Risk Register	/ SHS Supervisor TASC Manager
Planned Inspections	Monthly	Monthly	Leadership Team
Noise Monitoring	Actioned before Feb 2022	significant change to operations	SHS Supervisor
Environmental Protection Licence (EPL) - XXXX			
MHF Determination NT WorkSafe	Submitted Nov 2021 for Puraspec	Significant changes to storage amount	SHS Supervisor
MHF Determination NT WorkSafe	Submitted Nov 2021 for Spent Puraspec	Significant changes to storage amount	SHS Supervisor

9.1 Corrective and Preventive Action

Corrective and preventative actions arising as a result of incident investigation, audits or management review shall be assessed in accordance with the Qube Corrective and Preventative Action Procedure. Corrective or preventive actions which require change in process will be recorded in this EMP as appropriate.

Environmental incidents and complaints will be recorded and investigated in accordance with the Qube Incident Management Procedure SHEMS-QH-13-PR-0126.

10. Monitoring and Review

Environmental monitoring will be undertaken in accordance with the requirements of the Qube [SHEMS-QH-14-PR-0158 Workplace Inspection and Monitoring Procedure](#).

Key characteristics at all Shell Sites under the Scope of Work that are monitored by the Contracts Manager are outlined below:

Aspect	Criteria Monitored	System record is located on	Frequency
Shell requirement to capture contractor Energy and Fuel Use	Diesel and Electricity	ARIBA	Monthly
NGER reporting responsibility	Energy & Fuel consumption	INX	Annually
Quarterly Management Review	<i>Implementation of Plans. Trends in Environmental Incidents, Hazards, and meeting objectives and targets</i>	INX	<i>3 month / Annual Review</i>
Incident reports	<i>Investigation and analysis to establish action to address the root cause</i>	INX	<i>As required</i>
Internal audit	<i>Compliance Systems and Application of SHEMS</i>	INX	<i>As described in audit schedule</i>
Workplace inspections	<i>Monthly SHS Reports</i>	INX	<i>1 per month</i>

11. Related documents

- Managing Dangerous Goods and Hazardous Substances Procedure SHEMS-QPB-11-PR-0078
- Hazardous Substances and Dangerous Goods Register SHEMS-11-RG-0086
- Workplace Inspection Checklist SHEMS-QPB-14-FM-0145
- ERP

12. Records

Records will be maintained in accordance with the Qube Records Management Requirements SHEMS-QH-05-PR-0025.

Records maintained as part of the Environmental Management Plan include

- Legal, regulatory and other requirements such as licences, permits and approvals
- Corporate, regulatory and government communications regarding environmental management
- Environmental Aspects and Impacts Register
- Progress reports towards meeting objectives and targets of the environmental improvement programs

- Training records
- Audit reports
- Environmental incident reports
- Maintenance Records
- Equipment calibration records
- Environmental Complaints

Document Name	Retention Period
Environmental Aspects Register	7 yrs
Audit Reports & Corrective Actions	7 yrs
OH&S Inspection Checklist	7 yrs
Minutes of Management Reviews	7 yrs
HSE Committee Meeting Minutes	7 yrs
Maintenance and Engineering Reports	7 yrs
Training Records	7 yrs
Incident Reports	75 yrs
Incidents Investigation and Follow-up Reports	75 yrs
Reports of Emergency Response Drills	7 yrs
Workplace inspection records	7 yrs
Waste disposal / consignment notes	NT 2 yrs
Monitoring records required by environmental licence/permit conditions	NT 2 yrs
NGERS data	5 yrs
Efficiency Opportunities data	7 yrs
NRETAS Waste Control Register	2 yrs

13. Declaration

I have read and understand my responsibilities as outlined in this plan.


Position	Name (print)	Signature	Date
Shell Contract Manager	Teagan Peck		
TASC Supply Base Manager	Gregory Young		
SHS Supervisor	Shana Murray		
DOSB Supply Base Manager	Michael De Soza		
SHS and CI manager – Shell Contract	Weku Kinitavaki		

14. Appendix

14.1 Vessel backload manifest example

Item	Tab	Qty	Description	Serial No.	VGM KG's	Dimensions litre / item L x W x H			M3	M2	Supplier	No.	Comments	Transport From	Destination
1		1	6' Offshore Container Mini	AME3518	1900	1.9	1.6	2.8	8.51	3.04				FLNG	DOSB
			Operations Materials												
1		1	6' Offshore Container Mini	AME520	1600	1.9	1.6	2.8	8.51	3.04		N/A		FLNG	DOSB
			Operations Materials												
1		1	6' Offshore Container Mini	AME5489	1600	1.9	1.6	2.8	8.51	3.04	Swire	N/A		FLNG	DOSB
			Empty												
1		1	6' Offshore Container Mini	AME5474	1500	1.9	1.6	2.8	8.51	3.04	Swire	N/A	UN3281 CLASS 6.2	FLNG	RUSCA
			Hazardous Waste - Rusca												
1		1	6' Offshore Container Mini	AME5476	2100	1.9	1.6	2.8	8.51	3.04	Swire	N/A		FLNG	DOSB
			Operations Materials												
1		1	6' Offshore Container Mini	AME5487	1600	1.9	1.6	2.8	8.51	3.04	Swire	N/A		FLNG	DOSB
			Operations Materials												
1		1	6' Offshore Container Mini	AME5492	1600	1.9	1.6	2.8	8.51	3.04	Swire	N/A		FLNG	DOSB
			Empty												
1		1	6' Offshore Container Mini	AME5492	1900	1.9	1.6	2.8	8.51	3.04	Swire	N/A		FLNG	DOSB
			Operations Materials												
1		1	11' Offshore Open Top Container	CBP001	3600	3.1	2.4	2.6	19.55	7.56	OEG	N/A	UN3091 CLASS 9	FLNG	RUSCA
			Waste - Rusca												
1		1	11' Offshore Open Top Container	CBP003	5000	3.1	2.4	2.6	19.55	7.56	OEG	N/A		FLNG	RUSCA
			Mooring Chain												
1		1	11' Offshore Open Top Container	CBP006	5100	3.1	2.4	2.6	19.55	7.56	OEG	N/A		FLNG	DOSB
			Operations Materials												
1		1	11' Offshore Open Top Container	CBP009	3700	3.1	2.4	2.6	19.55	7.56	OEG	N/A		FLNG	DOSB
			Gas Racks												
1		1	11' Offshore Open Top Container	CBP011	3500	3.1	2.4	2.6	19.55	7.56	OEG	N/A		FLNG	DOSB
			Empty												
1		1	11' Offshore Open Top Container	CBP012	4200	3.1	2.4	2.6	19.55	7.56	OEG	N/A		FLNG	DOSB
			Empty												
1		1	12' Reefer Offshore Container	CRRU1876	3800	3.7	1.6	2.8	16.58	5.92	Sinwa	N/A		FLNG	SINWA
			Reefer - Empty												
1		1	3m3 Closed Trash Container	FAB3132	1300	2.0	1.5	1.6	4.80	3.00	Ferguson	N/A		FLNG	RUSCA
			General Waste - Rusca												
1		1	3m3 Closed Trash Container	FAB3133	1200	2.0	1.5	1.6	4.80	3.00	Ferguson	N/A		FLNG	RUSCA
			General Waste - Rusca												
1		1	3m3 Closed Trash Container	FAB3175	1100	2.0	1.5	1.6	4.80	3.00	Ferguson	N/A		FLNG	RUSCA
			General Waste - Rusca												
1		1	3m3 Closed Trash Container	FAB3249	1100	2.0	1.5	1.6	4.80	3.00	Ferguson	N/A		FLNG	RUSCA
			Cardboard Waste - Rusca												
1		1	3m3 Closed Trash Container	FAB3254	1000	2.0	1.5	1.6	4.80	3.00	Ferguson	N/A		FLNG	RUSCA
			Cardboard Waste - Rusca												
1		1	3m3 Closed Trash Container	FAB3255	1000	2.0	1.5	1.6	4.80	3.00	Ferguson	N/A		FLNG	RUSCA
			Plastic Waste - Rusca												
1		1	3m3 Closed Trash Container	FAB3377	1400	2.0	1.5	1.6	4.80	3.00	Ferguson	N/A		FLNG	RUSCA
			General Waste - Rusca												
1		1	10' Offshore Container	FADG3248	2700	3.0	2.4	2.6	18.72	7.20	Ferguson	N/A	UN1283 CLASS 3	FLNG	RUSCA
			Waste - Rusca												
1		1	10' Offshore Container	FADG3249	4700	3.0	2.4	2.6	18.72	7.20	Ferguson	N/A		FLNG	RUSCA
			Waste - Rusca												
1		1	10' Offshore Container	FADG3272	3000	3.0	2.4	2.6	18.72	7.20	Ferguson	N/A	UN3506 CLASS 8	FLNG	RUSCA
			Waste - Rusca												
1		1	Jet A1 Fuel Tank	FAHFT4008	2000	2.0	2.0	2.6	10.40	4.00	Hoover	N/A	UN1883 CLASS 3	FLNG	HOOVER
			Empty												

14.2 MO 41



MULTIMODAL DANGEROUS GOODS FORM

This form meets the requirements of SOLAS 74 Chapter VII regulation 4 and MARPOL 73/78 Annex III regulation 4.
 Note: When this form is used as a container/vehicle packing certificate only, not a combined document, a dangerous goods declaration signed by the shipper or supplier must have been issued/received to cover each dangerous goods consignment packed in the container. The container/vehicle packing certificate is not required for tanks.

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1. Shipper/Consignor/Sender [REDACTED]		2. Transport document number [REDACTED]	
24 hour contact number: [REDACTED]		3. Page of pages (page auto-numbers top right) [REDACTED]	4. Shipper's reference [REDACTED]
6. Consignee [REDACTED]		5. Freight forwarder's reference [REDACTED]	
7. Carrier (to be completed by the carrier) [REDACTED]		8. This shipment is within the limitations prescribed by the IMDG Code [REDACTED]	
9. Additional handling information [REDACTED]		10. Vessel and date [REDACTED]	
11. Port of discharge [REDACTED]		12. Port of destination [REDACTED]	
14. Shipping marks [REDACTED]	No. and kind of packages; description of goods* [REDACTED]	Gross Mass (kg) [REDACTED]	Net Mass (kg) [REDACTED]
15. Container identification No./ Vehicle registration No. [REDACTED]		16. Seal number(s) [REDACTED]	17. Container/vehicle size & type [REDACTED]
18. Tare mass (kg) [REDACTED]		19. Total gross (incl tare) (kg) [REDACTED]	
CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described above have been packed/loaded into the container/vehicle identified above in accordance with the applicable provisions† Must be completed and signed for all container/ vehicle loads by person responsible for packing/loading.		21. RECEIVING ORGANIZATION RECEIPT Received the above number of packages/containers/trailers in apparent good order and condition unless stated hereon. Receiving organization remarks: [REDACTED]	
20. Name of company (see note 2 on notes page) [REDACTED]		22. Name of company (of shipper preparing this note) [REDACTED]	
Name/status of declarant [REDACTED]		Name/status of declarant [REDACTED]	
Place and date [REDACTED]		Place and date [REDACTED]	
Signature of declarant [REDACTED]		DRIVER'S SIGNATURE [REDACTED]	

* DANGEROUS GOODS: You must specify - UN number, proper shipping name, class or division and packing group (where assigned) marine pollutant and observe the mandatory requirements under applicable national and international governmental regulations. For the purposes of the IMDG Code see 5.4.1.4. (see note 1 on notes page).
 † For the purpose of the IMDG Code, see 5.4.2 (see also note 2 on notes page).

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14.3 Truck Manifest

Truck Manifest To									
Date:									
PICKUP FROM: DMSB					TRUCK ID #				
DELIVER TO: TASC					Driver Name:				
Mendis Road					Driver Signature:				
East Arm									
VESSEL:					INBOUND				
MANIFEST #									
CCU's This Load	Quantity	Description	Serial No.	Total Weight Kgs	Dimensions - Mtrs			Comments	
					L	W	H		
<div style="border: 1px solid black; padding: 10px; transform: rotate(-20deg); display: inline-block;">EXAMPLE</div>									
RECEIVED MATERIAL AS MARKED ON SHEET:									
NAME:					DATE:				
SIGNATURE:					TIME:				
								Page 1 of 1	

14.4 Listed Waste Register

TURN AROUND SUPPORT CENTRE LISTED WASTE REGISTER (13/01/2024)																		
Location of Substance	Material #	SAP Material Description	Product Name	Manufacturer	HS Y or N	HS Y or N	Class	Sub risk	Packaging Group (I, II or III)	UN Number	Haschem Code	Quantity Stored	Unit of Measure	Controls	Risk Assessement Ref no.			
<div style="border: 1px solid black; padding: 10px; transform: rotate(-20deg); display: inline-block;">EXAMPLE</div>																		

14.5 Cart Note

QUBE ENERGY No. 3251

B Double Load / Single Load Date: ____/____/____

Pick up point: _____ Delivery address: _____

Vessel: _____ Bill of lading number: _____

Product description / dimensions	Packages	Remarks
EXAMPLE		

DISTRIBUTION: ORIGINAL (White) - OFFICE DUPLICATE (Pink) - CLIENT TRIPLICATE (Yellow) - BOOK **TOTAL:** _____

Goods are carried as per our normal terms and conditions Date: ____/____/____ Time in: ____ Time out: ____

RECEIVED IN GOOD ORDER AND CONDITION

Signature: _____ Name (please print): _____

If any discrepancy regarding the above delivery please contact our office immediately.

14.6 SDS

SAFETY DATA SHEET

Spent Mercury Bed Catalyst

Version 1.0 Revision Date 24.11.2021 Print Date 24.11.2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Spent Mercury Bed Catalyst

Manufacturer or supplier's details
Supplier : Shell Australia Pty Ltd
PO Box A47 CDC
Perth WA 6837
Australia

Telephone : +61893386600
Telex :

Emergency telephone number : +61 (0) 420 909 376

Email Contact for Safety Data Sheet : If you have any enquiries about the content of this SDS please email fuelSDS@shell.com

Authorized SDS Approver:
Andrew Shepherd, Principal Production Chemist
Andrew.Shepherd@shell.com

Recommended use of the chemical and restrictions on use

Recommended use : Spent Catalyst

Restrictions on use : This product must not be used in applications other than the above without first seeking the advice of the supplier.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Self-reactive substances and mixtures : Category 2
Skin irritation : Category 2
Skin sensitisation : Category 1
Eye irritation : Category 2
Acute toxicity : Category 1
Acute toxicity : Category 2
Germ cell mutagenicity : Category 1B
Carcinogenicity : Category 1B
Reproductive toxicity : Category 1B
Specific target organ toxicity - repeated exposure : Category 1
Short-term (acute) aquatic hazard : Category 1
Long-term (chronic) aquatic hazard : Category 1

GHS label elements

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