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1.0 Introduction

The Wheatstone Marine Terminal Cyclone Procedure is to facilitate a timely preparation of the Wheatstone Marine Terminal in readiness for cyclonic systems threatening to affect the Wheatstone Marine Terminal and mitigate any associated risks to personnel, property and the environment.

This document is to be used in conjunction with the Pilbara Ports Authority’s Port of Ashburton Cyclone Response Plan. This document acknowledges the Pilbara Ports Authority’s function under the Port Authorities Act 1999 to be responsible for the safe and efficient operation of the Ports over which it has jurisdiction.

1.1 Purpose

The purpose of this document is to ensure that:

- The Wheatstone Marine Terminal supports the Pilbara Ports Authority in discharging its’ “duty of care” responsibility to all port users, vessels and mariners within the port waters of the Port of Ashburton.
- All vessels associated with the Wheatstone Marine Terminal put to sea or proceed to designated cyclone berth or moorings and, where applicable have adequate time to clear the port and adjacent coast to avoid the impact of any approaching system.
- All vessels associated with the Wheatstone Marine Terminal have sufficient time to take the necessary steps to implement their cyclone response plans before the onset of adverse weather.
- In consultation and conjunction with the Pilbara Ports Authority, the Wheatstone Marine Terminal can provide guidance on the decision process under which marine operations can continue after cyclone warnings have been issued.

1.2 Scope

The scope of this document includes:

- Cyclone contingency plan requirements for Wheatstone Marine Terminal users
- Wheatstone Marine Terminal cyclone response stages
- Resumption of operations following a cyclone response

1.3 Objectives

The objectives of this document are:

- To provide a clear understanding of the role and responsibility of the Pilbara Ports Authority during a cyclone response
- Provide clarity on the various stages that the Wheatstone Marine Terminal will utilise for cyclone response planning
- Advise stakeholders of what actions will be taken at each stage of cyclone response
- Detail what actions are required by the Wheatstone Marine Terminal post cyclone event prior to recommencing operations

1.4 Target Audience

This document is intended for use by:

- Wheatstone Marine Operations team
- Wheatstone Emergency/Cyclone Management personnel
• Chevron Australia Emergency/Cyclone Management personnel
• ABU Marine Operations team
• Lifters and Lifting Co-ordinators
• Wheatstone Gas Plant Ownership and Operating Agreement (WGPA) Operators
• LNG and Condensate tanker operators
• LNG and Condensate tanker personnel
• Vessel Masters and Management using the Wheatstone Marine Terminal
• Svitzer (Tug and Pilot boat operators)
• Other associated Marine Service Providers (example maintenance or survey vessels)

1.5 Management System Expectations

The following Management System Expectations are associated with this document:

• Recognise the importance of having a comprehensive and cohesive planned response in the event of cyclonic systems affecting the Wheatstone Marine Terminal.

• Provide guidance to the Wheatstone Marine Operations team, Wheatstone Emergency/Cyclone Management personnel and Chevron Australia Emergency/Cyclone Management personnel to help manage and alleviate the impacts caused to the Wheatstone Marine Terminal marine assets and vessels by cyclonic systems.

• Prevent accidents and/or injury during times of cyclonic activity.

• Ensuring, as best possible, we have Incident Free Operations connected with cyclonic activity.
2.0 Procedure Overview

2.1 Cyclone Threat Monitoring

The Wheatstone Marine Terminal receives daily weather forecasts from the Bureau of Meteorology (BOM) – Special Services Unit (SSU). The forecasts will be distributed via electronic mail to vessels masters and personnel engaged with operations at the Wheatstone Marine Terminal. During the cyclone season, cyclone and tropical low development forecasts are received daily. When there is potential for a system to develop, forecasts are broadcast at six hourly intervals. The forecast frequency is increased to three hourly updates following the development of a tropical low or tropical cyclone system.

2.2 The Cyclone Coordination Group (CCG)

Once a forecast has been issued that indicates the potential for a system to develop the CCG will convene to resolve any potential factors that may be required in the cyclone threat assessment. The CCG includes the Wheatstone PIC, Wheatstone Marine Superintendent, and Emergency Management along with key operational personnel. Several factors will influence the demobilisation of vessels including tug availability, pilot availability, plant operational requirements, localised weather conditions and pilotage limitations.

To assist in the decision-making process at this meeting, and prioritisation of vessel demobilisation, the Wheatstone Marine Superintendent will require information from the following personnel:

- PPA Harbour Master
- Pilot/Loadmaster and export vessel Master
- Lifting Coordinator
- Tugs and Pilot vessel

Information required from the above personnel will include:

- Details of their vessels that are operating at the Wheatstone Marine Terminal
- Vessel Masters intentions for demobilisation
- Any limitations for sailing (e.g. loading status – stability and stress condition; machinery – propulsion limitations and considerations) and any other limiting factors
- Any vessel related limitations for sailing/departure or for remaining alongside
- Recommended demobilisation priority

2.3 Cyclone Contingency Plans

In accordance with the Wheatstone Marine Terminal Manual, all vessels (e.g. tugs, dedicated support craft, etc.) regularly operating within the Port of Ashburton in support of the Wheatstone Marine Terminal, shall have in place aboard their vessels, a current and up-to-date Cyclone Contingency Plan. Such plan should ensure that vessels have an adequate response time to secure to a cyclone mooring / berth and where necessary evacuate crew or proceed to sea to avoid the impact of any approaching cyclonic event.

Prior to the commencement of cyclone season, all vessels regularly operating at the Wheatstone Marine Terminal shall confirm to the Wheatstone Marine Superintendent that they have reviewed their Cyclone Contingency Plans and provide a copy of any updated or revised plans.
All other vessels (e.g. trading vessels) calling at the Wheatstone Marine Terminal shall, as a minimum have aboard their vessel and be guided by:

- This document (Wheatstone Marine Terminal - Cyclone Procedure), which is available on the Wheatstone Marine Terminal website (https://www.chevronaustralia.com/our-businesses/wheatstone/wheatstone-marine-terminal); and

- PPA’s Port of Ashburton – Cyclone Response Plan, which is available on the PPA website (www.pilbaraports.com.au).

2.4 Role of the Port of Ashburton Harbour Master

The Wheatstone Marine Terminal is in the port waters of the Port of Ashburton. Under the Port Authorities Act 1999 (The Act), the PPA is responsible for the safe and efficient operation of the Ports under their jurisdiction. The PPA has statutory authority within the gazetted port boundaries at the Port of Ashburton. The Port of Ashburton – Cyclone Response Plan applies to all port users under The Act and associated Port Authority Regulations 2001. Directions given to Masters, Crews and Port Operators will be under the auspices of The Act, particularly Part 7 Division 3 Section 104 – 108.

The Port of Ashburton Harbour Master is appointed by the PPA and is responsible for ensuring the port is as safe, as is possible under cyclonic threat, and that the PPA discharges its ‘duty of care’ to all mariners and their vessels, and to port users and their marine infrastructure within the Port.

2.5 Port of Ashburton – Cyclone Response Plan

The PPA has developed a Port of Ashburton – Cyclone Response Plan. This plan is administered by the Port of Ashburton Harbour Master and any directives issued by the Harbour Master under the plan must be complied with by all port users. The plan is available on the PPA website (www.pilbaraports.com.au)

2.6 Cyclone Season

The cyclone season in the northwest region of Australia is between the 1 November and 30 April. There are no safe havens or cyclone rated mooring within the port limits other than the tug pens for use exclusively by the terminal tugs and pilot boat.
3.0 Cyclone Response

The Wheatstone Marine Terminal will employ a staged response to a cyclone threat. Each operator will need to comply with these triggers and in accordance with their own CCPs. In addition to this terminal response procedure, all vessels and operators will be required to follow the directions given by the Port of Ashburton Harbour Master.

Table 3-1: Wheatstone Marine Terminal Response Stages

<table>
<thead>
<tr>
<th>Stage</th>
<th>Key Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Monitor</td>
<td>Tropical low or cyclonic system has formed within 800 nm (1500 km)</td>
</tr>
<tr>
<td>2.</td>
<td>Prepare</td>
<td>System approaches or develops within 400 nm (750 km) and is tracking towards the terminal with potential for impact</td>
</tr>
<tr>
<td>3.</td>
<td>Clear Terminal</td>
<td>System approaches or develops within 300 nm (550 km) and/or gale force winds are forecast to affect the terminal within 24 hours</td>
</tr>
<tr>
<td>4.</td>
<td>Close Terminal</td>
<td>System approaches or develops within 200 nm (370 km) and/or gale force winds are forecast to affect the terminal within 12 hours</td>
</tr>
<tr>
<td>5.</td>
<td>Open Terminal</td>
<td>Cyclone or threat of cyclone has passed – damage assessment and recovery</td>
</tr>
</tbody>
</table>

IMPORTANT NOTICE:
The Master of a vessel at the terminal retains responsibility for ensuring the safety of the vessel and those on board. Notwithstanding the vessel operator’s own cyclone procedures, the Master of a vessel operating within the port shall comply with these cyclone procedures.

3.1 Stage 1 – Monitor

BoM - SSU warnings provide information about the formation or potential formation of cyclonic systems in the area. When the warnings state that the system has moved within 800 nm of the Port of Ashburton the following will occur:

- The Wheatstone Marine Terminal cyclone response procedure will be activated.
- The Wheatstone Marine Superintendent will closely monitor the development of the system.
- The Wheatstone Marine Superintendent will liaise with the Port of Ashburton Harbour Master about monitoring the system and any proposed action for vessels associated with the Wheatstone Marine Terminal. At this stage, it is anticipated that there will be no restrictions on vessel movements.
- The Wheatstone Marine Superintendent, in consultation with the Port of Ashburton Harbour Master, will promulgate warnings and advice to Wheatstone Marine Terminal users via electronic mail, VHF or telephone.
- The Wheatstone Marine Superintendent will commence making plans for a closure of the Wheatstone Marine Terminal.
3.2 **Stage 2 – Prepare**

When the cyclonic system is tracking towards the Port of Ashburton, is within 400 nm and has the potential to affect the Port of Ashburton, the following will occur:

- The Wheatstone Marine Superintendent, in consultation with the Port of Ashburton Harbour Master, will promulgate warnings and advice to Wheatstone Marine Terminal users and support vessels, via electronic mail, VHF or telephone.
- The Wheatstone Marine Terminal will commence preparations for a cyclone impact.
- The Wheatstone Marine Superintendent will instruct Wheatstone Marine Terminal users to commence implementing their cyclone plan or procedure, if they have not already done so.
- Preparations that require a significant lead-time (such as those associated with construction/maintenance activities) should be commenced promptly to ensure their completion before cyclonic conditions affect the Port of Ashburton.
- There are no restrictions on general vessel movements. Specific vessel considerations are detailed in sub paragraphs below.
- A minimum of two tugs are to be on standby. Off-duty tugs are to be alerted to possibility of an early departure scenario.
- Vessel movements or loadings are subject to the localised forecasted weather, tide and tidal streams.
- Prepare tug moorings in pens, as per Svitzer Cyclone Contingency Plan.

### 3.2.1 Condensate Tanker

- Decisions to berth Condensate Tankers will be made by the CCG, and in consultation with the Port of Ashburton Harbour Master, based on the localised weather/tidal conditions and the forecasted potential for a system to impact on the Port.
- There are no restrictions to movements or loadings. Masters are to be kept informed of the situation and developments.

### 3.2.2 Moss LNG Carrier

- Decisions to berth Moss LNG Carriers will be made by the CCG, and in consultation with the Port of Ashburton Harbour Master, based on the localised weather/tidal conditions and the forecasted potential for a system to impact on the Port.
- Carriers may berth and/or continue loading provided the localised weather forecasts indicate a vessel can safely proceed to sea prior to the onset of Stage 4 and with the approval of the Port of Ashburton Harbour Master.

### 3.2.3 Membrane LNG Carrier

- Decisions to berth Membrane Carriers will be made by the CCG, and in consultation with the Port of Ashburton Harbour Master, based on the localised weather/tidal conditions and the forecasted potential for a system to impact on the Port.
- A Membrane carrier alongside at the declaration of Stage 2 will not proceed to load past the lower sloshing limit (in each tank) unless it can load or transfer sufficient cargo to safely achieve the upper sloshing limit before the forecast time for the declaration of Stage 3.
- Approval to load/continue loading must be granted by the Wheatstone Marine Superintendent.
3.3 Stage 3 – Clear Port
When the cyclonic system continues tracking towards the Port of Ashburton, is within 300nm (550kms) with the potential to impact on the port and gale force winds are expected to affect the Port of Ashburton within 24 hours, the following will occur:

- The Wheatstone Marine Superintendent, in consultation with the Port of Ashburton Harbour Master, will continue to promulgate warnings and advice to Wheatstone Marine Terminal users via electronic mail, VHF or telephone.
- The Port of Ashburton and its anchorages will be cleared of all vessels.
- Vessels associated with the Wheatstone Marine Terminal shall advise the Wheatstone Marine Superintendent and Port of Ashburton Harbour Master once they have completed their cyclone preparations via electronic mail, VHF or telephone.

It is anticipated that all vessels will be clear of the Port of Ashburton port limits at least 12 hours prior to the forecast onset of gale force winds. This timeframe is to ensure that all vessels have adequate time to clear the coast and reach a safe location prior to the onset of cyclonic conditions.

3.3.1 Condensate Tanker and Moss LNG Carrier
If any cyclone approaches within 300nm of the Port of Ashburton, a tanker/carrier is to make all necessary preparations to be able to depart with 1 hours’ notice. Readiness to sail must consider the vessel’s stability and stresses as well as consider localised weather and current/tide.

3.3.2 Membrane LNG Carrier
If any cyclone approaches within 300 miles of the Port of Ashburton, the carrier is to continue loading only sufficient cargo such that when combined with internal transfer the vessel can achieve acceptable sloshing limits. When there is sufficient cargo on-board to achieve these sloshing limits, the carrier will stop loading and proceed to sea.

3.4 Stage 4 – Port Closed
When a cyclonic system continues tracking towards the Port of Ashburton, is within 200nm (370kms) and is likely to impact on the Port of Ashburton with gale force winds within 12 hours, the following will occur:

- Where possible, the Wheatstone Marine Superintendent, in consultation with the Port of Ashburton Harbour Master, will continue to promulgate warnings and advice to port users via electronic mail, VHF or telephone.
- The Wheatstone Marine Terminal will be closed to all vessels.
- The Wheatstone Marine Terminal will be closed to all commercial operations, including construction/maintenance activities.

3.5 Stage 5 – Open Port
Once the cyclone or threat of cyclone has passed and conditions permit, the Wheatstone Marine Terminal will be re-opened. The responsibility to open the Port of Ashburton rests solely with the Port of Ashburton Harbour Master. The re-opening of the Port of Ashburton, including the Wheatstone Marine Terminal, may be a phased process and will depend on wind and sea conditions, damage assessment and recovery.

- The Wheatstone Marine Superintendent will notify users via electronic mail, VHF or telephone when the Wheatstone Terminal has re-opened.
• Typically, winds are expected to be less than gale force (approx. 55km/h – 30kts) with commensurate sea conditions before the Wheatstone Marine Terminal is reopened.

• Opening of the Wheatstone Marine Terminal does not imply that conditions are necessarily suitable for the resumption of normal operations.

• Operators and masters will need to make their own assessment as to the suitability of prevailing conditions for the safety of their operation and their vessels.

• Some restrictions on vessel berthing and movements may still be in force.

### 3.6 Resumption of Normal Port Operations

To ensure that facilities within the Wheatstone Marine Terminal are safe, prior to the resumption of operations, the Wheatstone Marine Superintendent in conjunction with the Port of Ashburton Harbour Master, shall confirm that berths and any associated navigation aids and channels are serviceable and safe for operations. Of particular concern are:

• The ability to provide a safe berth

• Fendering and mooring arrangements

• Ship shore interface equipment

• Charted depth alongside or in a berth

• Navigation aids location and illumination status verified

• Channel charted dimensions (depth and width)

Any damage to berth facilities, channels or navigation aids shall be reported to the Wheatstone Marine Superintendent and the Port of Ashburton Harbour Master as soon as possible.

The Port of Ashburton Harbour Master has sole responsibility to declare the resumption of normal port operations.
4.0 Roles, Responsibilities and Competencies

The following table outlines the roles, responsibilities and competencies associated with this document.

Table 4-1: Roles, Responsibilities and Competencies

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| Wheatstone Marine Superintendent    | • The Wheatstone Marine Superintendent (WMS) is responsible to the Wheatstone -LNG Plant Person in Charge (PIC) for the implementation of the Wheatstone Marine Terminal Cyclone Procedure. The WMS will consult with port and/or project operators to ensure timely execution of these procedures to ensure that the terminal is prepared for the onset of cyclonic conditions.  
• The WMS is to review these procedures annually, prior to commencement of cyclone season. The WMS is also to ensure any changes to these procedures are communicated to the relevant stakeholders (e.g. Port of Ashburton Harbour Master and Wheatstone Emergency Management Coordinator).  
• Liaise with and support the Port of Ashburton Harbour Master when cyclonic systems affect upon the Wheatstone Marine Terminal. |
| Vessel Masters/Operators            | • The Master of a vessel associated with the Wheatstone Marine Terminal retains responsibility for ensuring the safety of the vessel and the personnel on-board. Notwithstanding the vessel operator’s own cyclone procedures, the Master of a vessel operating at the Wheatstone Marine Terminal shall comply with these cyclone procedures. |
| Port of Ashburton Harbour Master    | • The Port of Ashburton Harbour Master is responsible to the Chief Executive Officer of the PPA for the implementation of the Port of Ashburton - Cyclone Response Plan. The Port of Ashburton Harbour Master will consult with terminal and/or project operators to ensure timely execution of these procedures to ensure that the port is prepared for the onset of cyclonic conditions.  
• The Port of Ashburton Harbour Master is to review the Port of Ashburton - Cyclone Response Plan annually, prior to commencement of cyclone season. The Port of Ashburton Harbour Master is also to ensure any changes to the plan are communicated to the relevant stakeholders (e.g. Wheatstone Marine Superintendent and Wheatstone Emergency Management Coordinator).  
• Liaise with and support the Wheatstone Marine Superintendent when cyclonic systems affect the Wheatstone Marine Terminal. |
5.0 Continual Improvement

This document is to be reviewed annually, prior to commencement of cyclone season.
6.0 Acronyms and Abbreviations

Table 6-1 defines the acronyms and abbreviations used in this document.

Table 6-1: Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym/Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABU</td>
<td>Chevron Australia Business Unit</td>
</tr>
<tr>
<td>BoM</td>
<td>Bureau of Meteorology</td>
</tr>
<tr>
<td>CCP</td>
<td>Cyclone Contingency Plan</td>
</tr>
<tr>
<td>CCG</td>
<td>Cyclone Coordination Group</td>
</tr>
<tr>
<td>Nm</td>
<td>Nautical miles</td>
</tr>
<tr>
<td>PIC</td>
<td>Person in Charge</td>
</tr>
<tr>
<td>PPA</td>
<td>Pilbara Ports Authority</td>
</tr>
<tr>
<td>SSU</td>
<td>Special Services Unit</td>
</tr>
<tr>
<td>WHS</td>
<td>Wheatstone</td>
</tr>
<tr>
<td>WMS</td>
<td>Wheatstone Marine Superintendent</td>
</tr>
</tbody>
</table>
7.0 References

The following documentation is either directly referenced in this document or is a recommended source of background information.

Table 7-1: References

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Description</th>
<th>Document ID</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Chevron ABU Marine Oil Pollution Plan</td>
<td>OE-11.01.101</td>
</tr>
<tr>
<td>2.</td>
<td>ABU - Cyclone Response Plan</td>
<td>OE-11.01.112</td>
</tr>
<tr>
<td>3.</td>
<td>ABU - Emergency Contact Directory</td>
<td>OE-11.01.142</td>
</tr>
<tr>
<td>5.</td>
<td>Port of Ashburton - Port Handbook</td>
<td>A341988</td>
</tr>
<tr>
<td>6.</td>
<td>Port of Ashburton - Cyclone Response Plan</td>
<td>A542324</td>
</tr>
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<td>7.</td>
<td>Svitzer Cyclone Contingency Plan</td>
<td>WS1-COP-00330</td>
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