



GPC

Severe and Extreme Weather – Trigger Action Response Plan

Brief description

This Instruction describes how GPC prepares and applies the Trigger Action Response Plan (TARP) in the event of severe or extreme weather events across GPC sites.

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1 Terms and definitions

In this Instruction:

“**GMPS**” – Gladstone Marine Pilot Services Pty Ltd.

“**RGTCT**” –RG Tanna Coal Terminal.

Dynamic risk assessment – The practice of mentally observing, assessing and analysing an environment to identify risk to allow quick decisions to be made regarding safety in rapidly changing circumstances.

Terms that are capitalised and not otherwise defined in this Instruction are in the GPC Corporate Glossary Instruction (as listed in Appendix 1 – Related documents).

2 Introduction

2.1 Purpose

This Trigger Action Response Plan (TARP) for severe and extreme weather events across GPC sites provides guidelines to all personnel onsite in regards to safely preparing and responding to severe and extreme weather events. The TARP outlines a pre-planned sequence of control actions for execution in the event of a defined trigger being met.

2.2 Scope

The TARP applies to severe and extreme weather events at GPC sites and must be adhered to by all persons (including contractors that are not working as the principal contractor).

Weather events included in the TARP are:

- Dangerous Thunderstorms;
- Wind;
- Rain;
- Lightning; and
- Hail.

Currently through the Weatherzone application subscription, the 50km, 30km and 16km rings are only available for Port of Gladstone and Port Alma. The Weatherzone application is still able to be utilised by Port of Bundaberg to monitor the weather risk and take appropriate action.

In the event of a cyclone warning / cyclone weather event, the Emergency Management Plan supersedes the TARP.

2.3 Objectives

The objectives of the TARP are to ensure that:

- All persons are aware of their responsibilities during a severe or extreme weather event;
- All persons are suitably managed and safe both during and post severe and extreme weather events;

- The impact of severe and extreme weather events on plant, equipment and stockpiles is minimised where possible; and
- Environmental obligations are considered and managed prior to, during and after severe and extreme weather events.

3 GPC Severe and Extreme Weather Trigger Action Response Plan

3.1 Monitoring weather

The impact of weather events to the site is to be minimised wherever possible. This includes regularly monitoring Weatherzone, the Bureau of Meteorology (BOM) website (short and long-term forecasts), site alarms and weather conditions in order to suitably prepare and manage activities on site and take appropriate action for the protection of people, plant, equipment and the environment.

GPC subscribes to Weatherzone to assist personnel with monitoring the weather, assessing weather risks and identifying trigger levels within the associated weather TARPs. Where GPC engages contractors to perform work where weather is a risk that needs to be monitored (from a safety or environmental perspective), the GPC Representative can request for the contractors to also gain access to GPC's Weatherzone subscription for the duration of their works. Refer to the Weatherzone Single Point Lesson for further details.

The following operational forecast settings are utilised in Weatherzone to provide warnings of weather conditions or events.

High Wind Risk (wind gusts – km/h)

- Red > 72 km/h / > than 38 knots
- Yellow > 37 km/h / 27-38 knots
- Green < 37 km/h / 18-27 knots

Heavy Rainfall Risk (rain rate mm/h)

- Red > 6.25 mm/h
- Yellow > 4.7 mm/h
- Green < 4.7 mm/h

Lightning

- Red – within 16km radius
- Yellow – within 30km radius
- Blue – within 50km radius

Thunderstorms

- Level 1 (grey) – 3+ flashes/min
- Level 2 (purple) – 12+ flashes/min
- DTA (Dangerous Thunderstorm Alert – red) – 25+ flashes/min

Rainfall information is available through Weatherzone as well as Day of Operations (DOOP). From the DOOP Stockpile Map, hover the indicator over each of the four (4) rain sites around RGTCT to display the recorded 24-hour rainfall data. From the Stockpile Map, an RGTCT Rainfall Report is also available for generation.

Recorded rainfall is mostly used to determine stockpile management decisions. Post rain events, sites should conduct their own risk assessment of ground conditions prior to re-commencing work.

3.2 Weather conditions below / outside trigger points

Below / outside the defined trigger points or Weatherzone alerts this is considered normal weather operating conditions, however daily weather conditions, systems or alerts should still be regularly monitored. General activities that should occur regardless if weather conditions meet trigger levels in the TARP include:

- Weather forecasts communicated in pre-starts and any condition changes communicated throughout the day as required. Individuals/teams can also self-check weather forecasts through the Weatherzone desktop or mobile app.
- Weather forecasts considered in work planning.
- All relevant GPC personnel (e.g. leaders) to have access to the Weatherzone app.
- All personnel aware of severe / extreme weather responses for their areas and are able to initiate and respond if required.
- Preparations made for the cyclone season as per the Cyclone Preparedness and Response Emergency Management Plan.
- Site communication protocols, radios, equipment and procedures remain fit for purpose and accessible.
- Housekeeping maintained across workplaces.

These practices ensure GPC prepare for changes in weather conditions or sudden onsets of severe and extreme weather.

3.3 Dangerous Thunderstorms TARP

Refer to Appendix 2 for the Dangerous Thunderstorm TARP.

A Thunderstorm Alert is issued when the lightning detection rate exceeds a threshold, as defined by Earth Networks' research into correlations between total lightning rates and severe weather potential. Total lightning is critical in the production of the Thunderstorm Alert. High rates of total lightning serve as a precursor of the potential for severe weather activity.

The Thunderstorm Alert displayed on Weatherzone's Stormtracker includes a polygon encompassing the area at risk over the next 30 minutes, an outline of current active lightning area and a vector illustrating the direction and speed of the severe lightning activity.

Once an alert is issued, it is updated every 15 minutes until the dangerous weather activity is no longer a threat. There are three lightning intensity rates used in the production of thunderstorm alerts:

- RED (level 3) - The Dangerous thunderstorm Alert (DTA) is the highest rate and the only event considered an alert for severe weather.
- BLUE (level 1), YELLOW (level 2) - Other thresholds which are displayed on the storm tracker, but are not considered severe weather alerts.

In the event of a current DTA at end of shift, conduct a dynamic risk assessment of the current weather conditions and/or seek direction from leader to determine when and how to leave site.

(a) Post Dangerous Thunderstorm Alert

Operations may resume, providing the level 3 (red) DTA which stopped any operations has passed and is outside the red range ring. Consideration should be given to any other DTAs within the blue range ring (50km) before recommending. A PORT at the work front should be completed prior to re-commencing any work activities / operations.

3.4 Lightning TARP

Refer to Appendix 3 for the lightning TARP.

The Weatherzone lightning radius triggers act as the TARP response levels. Dangerous Thunderstorm Alerts (DTAs) received through Weatherzone will also act as a weather monitoring tool for lightning. A DTA (red) threshold is 25+ flashes/min. Lightning and DTA analysis in Weatherzone will have lightning strikes mapped and quadrants identifying the severe weather locations and tracking.

(a) Lightning safe areas

As identified through the lightning TARP, certain lightning event triggers requires workers to not remain outdoors and ensure they are in designated safe areas. Designated safe areas can include:

- Inside a building with facilities (keeping away from windows)
- Under or within a large, fully or partially enclosed, substantially constructed structure
- Inside a metal-skinned vehicle, mobile equipment etc. with windows up and fully enclosed cabs

Workers should avoid the following locations where possible:

- Standing near trees, fences, outdoor metal objects, lighting poles, tall metallic masts or other tall structures
- Standing in wide open areas
- Umbrellas
- Peaks, ridges or significantly high ground or areas on top of structures
- Non-metal top or open vehicles/mobile equipment.

In the event of a current Red/Level 3 lightning event at end of shift, conduct a dynamic risk assessment of the current weather conditions and/or seek direction from leader to determine when and how to leave site.

(b) Post lightning wind event

After a Level 3 trigger lightning event has passed, and the trigger has downgraded on Weatherzone, Supervisors are to communicate to workers and advise that work activities / operations can recommence. A PORT at the work front should be completed prior to re-commencing any work activities / operations.

3.5 Wind TARP

Refer to Appendix 4 for the wind TARP.

(a) Post high wind event

After a high wind event (sustained Level 3 trigger – not just a gust), Supervisors are to ensure the following activities are completed once the severe weather has passed or subsided:

- Check and inspect designated areas for any damage to plant, equipment and/or infrastructure and report findings to Supervisor.
- Remove straps/ties etc. from any equipment tied down during housekeeping preparations.
- Clean up and dispose of any debris.

3.6 Rain TARP

Refer to Appendix 5 for the rain TARP.

(a) Post rain event

After rain event (more than 50mm received within 24-hours), Supervisors are to ensure the following activities are completed:

- Check and inspect designated areas for any flooding/overflows or damage to plant, equipment or infrastructure and report findings to Supervisor.
- Check the site Stormwater Settlement Pond capacity. If level of water is high (above decant pipe level), engage with Environment to test water quality and initiate a release (refer to Stormwater Management Procedure).
- Inspect stockpiles and roadways for any slumping or coal wash and take appropriate action.
- Inspect stockpiles for any excessively wet stockpiles and take appropriate action.
- Inspect bunds and drain contained water.
- Run all water from belts before operations recommence.
- Conduct a PORT to assess work areas and site conditions prior to any ceased work tasks re-starting.
- Pre-inspections of earthwork areas before work commences after a rain event. If area is determined un-safe for normal operations, conduct a JSA to determine activities to resolve. If area cannot be resolved immediately, barricade area.

3.7 Hail TARP

Refer to Appendix 6 for the hail TARP.

(a) Post hail event

After a hail event, Supervisors are to ensure the following activities are completed once the severe weather has passed:

- Check and inspect designated areas for any damage to plant, equipment or infrastructure and report findings to Supervisor.
- Clean up and dispose of any debris.

4 Appendices

4.1 Appendix 1 – Related documents

(a) Legislation and regulation

Key relevant legislation and regulation, as amended from time to time, includes but is not limited to:

Type	Legislation/regulation/guidelines
Federal Acts	N/A
State Acts	<i>Work Health and Safety Act 2011 (QLD)</i> <i>Work Health and Safety Regulation 2011 (QLD)</i>
Other	N/A

(b) Gladstone Ports Corporation documents

The following documents relate to this Instruction:

Type	Document number and title
Tier 1: Policy	#365624 Safety Policy
Tier 2: Standard/Strategy	#854303 Safety Management Framework Standard
Tier 3: Specification/ Procedure/Plan	#97714 Cargo Handling Stormwater Management Procedure
Tier 4: Instruction/Form/ Template/Checklist	#1468756 Single Point Lesson – Flowchart for Stormwater Release #1603526 Single Point Lesson – Weatherzone Operational and Planning Support Forecast – Lightning Alert – Dangerous Thunderstorm Alerts #1267192 Work Instruction – Pack up RGTCT Shiploader due to high winds #1645165 Safe Work Instruction – Operation of Dewatering Pump

Type	Document number and title
	<p>#1641743 Work Instruction – Manual Operation of Belt Dewatering Systems CC5, CC5A, CC5B</p> <p>#1648288 Single Point Lesson – Interim Control for Minimising Spillage on Wharf due to Water on Belts</p>
Other	Nil

4.2 Appendix 2 – Dangerous Thunderstorm TARP

The colours for the Thunderstorm Alerts do not represent the range rings on Weatherzone. The colours represent the intensity of the weather event.

Any Level 3 Dangerous Thunderstorm Alert (red) within 30km yellow range ring activates the TARP (Level 3 actions). All Dangerous Thunderstorm Alerts outside of the yellow range ring must be monitored.

WORK GROUPS	LEVEL 1 Level 1 (blue) 3+ flashes/min – Thunderstorm Alert in Weatherzone	LEVEL 2 Level 2 (yellow) 12+ flashes/min = Thunderstorm Alert in Weatherzone	LEVEL 3 Dangerous Thunderstorm Alert (red) 25+ flashes/min - Weatherzone
All Departments – All direct leaders	<ul style="list-style-type: none"> Notified of weather alert through Weatherzone. Regularly monitor storm path. Alert relevant personnel in regards to the weather event (awareness only). If already communicated as a result of Lightning TARP activation, no further communication required. 	<ul style="list-style-type: none"> Notified of weather alert through Weatherzone. Monitor weather system continuously. Communicate weather event to all personnel. If weather system is headed directly for work fronts, direct workers to make work area and activities safe, and prepare to move indoors or to a designated safe area. This includes making safe and ceasing lifting operations/crane activities and work at heights activities. 	<ul style="list-style-type: none"> Notified of DTA weather alert through Weatherzone. Monitor weather system continuously. Communicate weather event and any ongoing changes to all personnel. Notify Managers of any operational work ceasing. Cease outdoor and exposed work, and workers to remain indoors or in designated safe area. Movement between safe areas or vehicles should be restricted. Confirm protection of personnel. Communicate to all personnel when weather event has passed.
Production Terminal Supervisors	<p>When within 50km:</p> <ul style="list-style-type: none"> In the event of an upcoming tie up or let go, begin to engage with Marine Pilots and lines boats in regards to shipmooring activities and discuss any potential impacts / changes. Follow any directions from Marine Pilots. Contact all vessels berthed at RGT to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. Shiploading operations can continue. 	<p>When within 50km:</p> <ul style="list-style-type: none"> Monitor storm path (polygon) and consider proximity and direction of storm travel to RGTCT by range rings on Weatherzone app. For planned mooring activities, liaise with VTS (Vessel Traffic Services) in the first instance if unable to contact Marine Pilot on VHF radio. Follow any directions from Marine Pilots. Contact all vessels berthed at RGTCT to warn of weather event and the 	<p>When within 50km:</p> <ul style="list-style-type: none"> Contact all vessels berthed at RGT to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. For planned mooring activities, liaise with VTS (Vessel Traffic Services) in the first instance if unable to contact marine pilot on VHF radio. Follow any directions from marine pilots. <p>When within 30km:</p>

	<ul style="list-style-type: none"> • If Supervisor is unable to monitor Weatherzone, advise Control Room to monitor. <p>When within 16km:</p> <ul style="list-style-type: none"> • Shiploader operators to remain inside cabins (Faraday cage in cabin) and monitor two way radio and advise of vessel movement. • Dozer operators to remain inside cabins and monitor two way radio. • Direct shiploader operator to: <ul style="list-style-type: none"> ○ Immediately turn feeders off and run belts empty and continue to leave the belts running. ○ Cease loading and move shiploader to a safe height above any structure on the ship when adjacent e.g. vessel bridge, cranes, stand-up hatch covers. ○ Control Room Coordinator/s to move cameras to berths where vessels are located and monitor vessel movement. Communicate any vessel movement/s to the Terminal Supervisors throughout the Dangerous Thunderstorm event. • Train unloading can continue dependent on rain rate (mm/h as identified on Weatherzone), visibility and stockpile conditions/saturation. 	<p>requirement to ensure all vessel-mooring lines are tensioned.</p> <ul style="list-style-type: none"> • Ensure shiploaders that are not in use are parked and positioned in storm locks. • Check shore brow is positioned correctly. Assess if the brow should remain on vessel. • Direct dozer and shiploader operators to be prepared to make work area and activities safe in preparation if they are further directed to cease work. Direct operators to remain in cabins and monitor 2-way radios. Maintain contact with operators using 2-way radios. If meal breaking or completing shift, change is possible if lightning is outside of red range rings. <p>When within 16km:</p> <ul style="list-style-type: none"> • Shiploader operators to remain inside cabins (Faraday cage in cabin) and monitor two way radio and advise of vessel movement. • Dozer operators to remain inside cabins and monitor two way radio. • Direct shiploader operator to: <ul style="list-style-type: none"> ○ Immediately turn feeders off and run belts empty and continue to leave the belts running. ○ Cease loading and move shiploader to a safe height above any structure on the ship when adjacent e.g. vessel bridge, cranes, stand-up hatch covers etc. ○ Control Room Coordinator/s to move cameras to berths where vessels are located and monitor 	<ul style="list-style-type: none"> • Ensure shiploaders that are not in use are parked and positioned in storm locks. • Shiploader to cease loading and run coal off belts. Direct shiploader operators to perform the following actions: <ul style="list-style-type: none"> • Booms raised to 73 degrees and locking ram applied. • Travel shiploader to storm lock position and manually put locking pins into designated position in wharf (this will be determined based on the severity and direction of the incoming DTA, including wind – review Weatherzone data before directing). Travel rail clamps must be applied when shiploader in parked. • Dozer operations can continue dependent on rain rate (mm/h as identified on Weatherzone), visibility and stockpile conditions/saturation. <p>When within 16km:</p> <ul style="list-style-type: none"> • Dozer operations can continue dependent on rain rate (mm/h as identified on Weatherzone), visibility and stockpile conditions/saturation. • Dozer operators to remain inside cabins and monitor two way radio. • Train unloading can continue dependent on rain rate (mm/h as identified on Weatherzone), visibility and stockpile conditions/saturation. • Shiploader operators to remain inside cabins (Faraday cage in cabin) and monitor two way radio and advise of vessel movement.
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		<p>vessel movement. Communicate any vessel movement/s to the Terminal Supervisor throughout the Dangerous Thunderstorm Event.</p> <ul style="list-style-type: none"> • Train unloading can continue dependent on rain rate (mm/h as identified on Weatherzone), visibility and stockpile conditions/saturation. 	<ul style="list-style-type: none"> • Direct shiploader operator to: <ul style="list-style-type: none"> ○ Immediately turn feeders off and run belts empty and continue to leave the belts running. ○ Cease loading and move shiploader to a safe height above any structure on the ship when adjacent e.g. vessel bridge, cranes, stand-up hatch covers etc. ○ Control Room Coordinator/s to move cameras to berths where vessels are located and monitor vessel movement. Communicate any vessel movement/s to the Terminal Supervisor throughout the Dangerous Thunderstorm Event. • Liaise with Superintendents and Logistics as required in relation to any loading/unloading impacts (e.g. vessel tie up delay).
Logistics		<ul style="list-style-type: none"> • Monitor and liaise with shipping and rail stakeholders as required. 	<ul style="list-style-type: none"> • Monitor and liaise with shipping and rail stakeholders as required.
Earthworks Supervisors	<ul style="list-style-type: none"> • Communicate to all personnel on site Level 1 trigger reached and advise to await and follow Supervisor directions. • Prepare necessary site closure resources required to leave the site safe in the event of possible shutdown of operations. <ul style="list-style-type: none"> ○ Deep excavation works to cease ○ Barricading made available to begin to guard any open excavations ○ Idle plant to be parked designated areas and isolated. 	<ul style="list-style-type: none"> • Communicate to all personnel on site Level 2 trigger reached and advise to begin site closure operations. • Direct mobile equipment operators to conduct civil works required to make work area safe: <ul style="list-style-type: none"> ○ Grader/excavator operators to re-establish any stormwater drains/flow diversion bunds in the immediate work area or as directed by the Supervisor ○ Supervisors to direct loaded trucks to unload material in a 	<ul style="list-style-type: none"> • Communicate to all personnel on site Level 3 trigger reached and advise all operations are to cease and personnel are required to return/be ferried to crib rooms. • Supervisor to collect all mobile equipment operators to ferry to nearest GPC crib room if no crib room located on current work site. • Where GPC crib rooms are located on site: <ul style="list-style-type: none"> ○ Direct wheeled mobile equipment operators to drive equipment to

		<p>designated area and return to closest truck parking area.</p> <ul style="list-style-type: none"> All personnel are to follow directions of Supervisors and continue preparation works awaiting further direction by the Supervisor. 	<p>mobile equipment go line areas and return to crib room.</p> <ul style="list-style-type: none"> Supervisors collect and ferry tracked machined operators to crib room. All personnel to remain in crib rooms until Supervisor gives the all clear to recommence operations.
GPC Contractor Supervisors		<ul style="list-style-type: none"> Notify all contractors onsite of current weather system status and to make work area and activities safe. Contractors are then to prepare to move indoors or to designated safe area. 	<ul style="list-style-type: none"> Confirm protection of contractors. Outdoor and exposed work ceased and workers to remain indoors or in designated safe area.
Parks & Recreation Superintendent / Coordinators	<ul style="list-style-type: none"> Notified of weather alert through Weatherzone. Regularly monitor storm path. Alert relevant personnel in regards to the weather event (awareness only). If already communicated as a result of Lightning TARP activation, no further communication required. 	<ul style="list-style-type: none"> Notified of weather alert through Weatherzone. Monitor weather system continuously. Communicate weather event to all personnel. If weather system is headed directly for work fronts, direct workers to make work area and activities safe, and prepare to move indoors or to a designated safe area. Shut down East Shores and move to a safe area. Alert public in the East Shores area and shut down the water park. 	<ul style="list-style-type: none"> Notified of DTA weather alert through Weatherzone. Monitor weather system continuously. Communicate weather event and any ongoing changes to all personnel. Notify Managers of any operational work ceasing. Cease outdoor and exposed work, and workers to remain indoors or in designated safe area. Movement between safe areas or vehicles should be restricted. Confirm protection of personnel. Communicate to all personnel when weather event has passed.
Port of Bundaberg (passenger ships)	<ul style="list-style-type: none"> In the event of an upcoming tie up or let go, begin to engage with Marine Pilots and lines boats in regards to shipmooring activities and discuss any potential impacts / changes. Follow any directions from Marine Pilots. Contact all vessels berthed to warn of weather event and the requirement to 	<p>When within 50km:</p> <ul style="list-style-type: none"> Monitor storm path and consider proximity and direction of storm on Weatherzone app. For planned mooring activities, liaise with VTS (Vessel Traffic Services) in the first instance if unable to contact Marine Pilot on VHF radio. Follow any directions from Marine Pilots. 	<p>When within 50km:</p> <ul style="list-style-type: none"> Contact all vessels berthed to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. For planned mooring activities, liaise with VTS (Vessel Traffic Services) in the first instance if unable to contact

	<p>ensure all vessel-mooring lines are tensioned.</p>	<ul style="list-style-type: none"> • Contact all vessels berthed to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. • Check shore brow is positioned correctly. Assess if the brow should remain on vessel. <p>When within 16km:</p> <ul style="list-style-type: none"> • Personnel to remain in a designated safe area. 	<p>marine pilot on VHF radio. Follow any directions from marine pilots.</p> <p>When within 16km:</p> <ul style="list-style-type: none"> • Personnel to remain in a designated safe area.
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4.3 Appendix 3 - Lightning TARP

WORK GROUPS	LEVEL 1 Within blue zone (50km) in Weatherzone	LEVEL 2 Within yellow zone (30km) in Weatherzone	LEVEL 3 Within red zone (16km) in Weatherzone
All Departments – All direct leaders	<ul style="list-style-type: none"> Notified of blue zone weather alert through Weatherzone. Regularly monitor storm path. Alert relevant personnel in regards to the weather event (awareness only). 	<ul style="list-style-type: none"> Notified of yellow zone weather alert through Weatherzone. Weather system to be monitored continuously. Communicate weather event to all personnel. If weather system is headed directly for work fronts, direct workers to make work area and activities safe and prepare to move indoors or to a designated safe area. This includes making safe and ceasing lifting operations/crane activities and work at heights activities. 	<ul style="list-style-type: none"> Notified of red zone weather alert through Weatherzone. Weather system to be monitored continuously. Communicate weather event and any ongoing changes to all personnel. Notify Managers of any operational work ceasing. Outdoor and exposed work to be ceased and workers to remain indoors or in designated safe area. Movement between designated safe areas or vehicles should be restricted. No lifting operations/crane activities or work at height activities. Confirm protection of personnel. Communicate to all personnel when weather event is no longer a Level 3 trigger (in the red zone).
Production Terminal Supervisors	<ul style="list-style-type: none"> In the event of an upcoming tie up or let go, begin to engage with Marine Pilots and lines boats in regards to shipmooring activities and discuss any potential impacts / changes. Follow any directions from Marine Pilots. Supervisor contacts Control Room to assist with monitoring Weatherzone. 	<ul style="list-style-type: none"> Postpone / delay upcoming shipmooring activities in the event the weather system is headed directly for RGTCT. If a vessel is at berth and all mooring lines have not been secured, a risk assessment is required to determine completion of mooring. The Supervisor is to conduct the risk assessment. If already on the wharf, the risk assessment, where possible, should be conducted with workers in a safe zone (e.g. light vehicle). Liaise with Marine Pilots, VTS (Vehicle Traffic Schedulers) and lines boats as 	<ul style="list-style-type: none"> Shiploading operations can continue. Direct shiploader operator to: <ul style="list-style-type: none"> Operate shiploader with a safe clearance from the vessel above the high tide mark. If not possible, cease loading and move shiploader to a safe height. Remain in cabin and monitor 2-way radio. Dozer operations can continue dependent on rain rate (mm/h as identified on Weatherzone), visibility and stockpile conditions/saturation.

		<p>required. Follow any directions from Marine Pilots.</p> <ul style="list-style-type: none"> Notify operators to monitor 2-way radios for updates. 	<ul style="list-style-type: none"> Direct dozer operators to remain in cabin (Faraday cage) and monitor 2-way radio. No changeovers can occur. Train unloading can continue dependent on rain rate (mm/h as identified on Weatherzone), visibility and stockpile conditions/saturation. No shipmooring activities. Liaise with Superintendents and Logistics as required in relation to any loading/unloading impacts (e.g. vessel tie up delay).
Logistics		<ul style="list-style-type: none"> Monitor and liaise with shipping and rail stakeholders as required. 	<ul style="list-style-type: none"> Monitor and liaise with shipping and rail stakeholders as required.
Earthworks Supervisors	<ul style="list-style-type: none"> Communicate to all personnel on site Level 1 trigger reached and advise to await and follow Supervisor directions. Prepare necessary site closure resources required to leave the site safe in the event of possible shutdown of operations. <ul style="list-style-type: none"> Deep excavation works to cease Barricading made available to begin to guard any open excavations Idle plant to be parked designated areas and isolated. 	<ul style="list-style-type: none"> Communicate to all personnel on site Level 2 trigger reached and advise to begin site closure operations. Direct mobile equipment operators to conduct civil works required to make work area safe: <ul style="list-style-type: none"> Grader/excavator operators to re-establish any stormwater drains/flow diversion bunds in the immediate work area or as directed by the Supervisor Supervisors to direct loaded trucks to unload material in a designated area and return to closest truck parking area. All personnel are to follow directions of Supervisors and continue preparation works awaiting further direction by the Supervisor. 	<ul style="list-style-type: none"> Communicate to all personnel on site Level 3 trigger reached and advise all operations are to cease and personnel are required to return/be ferried to crib rooms. Supervisor to collect all mobile equipment operators to ferry to nearest GPC crib room if no crib room located on current work site. Where GPC crib rooms are located on site: <ul style="list-style-type: none"> Direct wheeled mobile equipment operators to drive equipment to mobile equipment go line areas and return to crib room. Supervisors will collect and ferry tracked machined operators to a designated safe area All personnel to remain in a designated safe area until Supervisor gives the all clear to recommence operations.
GPC Contractor Supervisors		<ul style="list-style-type: none"> Notify all contractors onsite of current weather system status and to make 	<ul style="list-style-type: none"> Confirm protection of contractors.

		work area and activities safe. Contractors are then to prepare to move indoors or to designated safe area.	<ul style="list-style-type: none"> Outdoor and exposed work ceased and workers to remain in a designated safe area.
Parks & Recreation Superintendent / Coordinators	<ul style="list-style-type: none"> Notified of blue zone weather alert through Weatherzone. Regularly monitor storm path. Alert relevant personnel in regards to the weather event (awareness only). 	<ul style="list-style-type: none"> Notified of yellow zone weather alert through Weatherzone. Weather system to be monitored continuously. Communicate weather event to all personnel. If weather system is headed directly for work fronts, direct workers to make work area and activities safe and prepare to move indoors or to a designated safe area. Shut down East Shores and move to a safe area. Alert public in the East Shores area and shut down the water park. 	<ul style="list-style-type: none"> Notified of red zone weather alert through Weatherzone. Weather system to be monitored continuously. Communicate weather event and any ongoing changes to all personnel. Notify Managers of any operational work ceasing. Outdoor and exposed work to be ceased and workers to remain indoors or in designated safe area. Movement between designated safe areas or vehicles should be restricted. No work at height activities. Confirm protection of personnel. Communicate to all personnel when weather event is no longer a Level 3 trigger (in the red zone).
Port of Bundaberg (passenger ships)	<ul style="list-style-type: none"> In the event of an upcoming tie up or let go, begin to engage with Marine Pilots and lines boats in regards to shipmooring activities and discuss any potential impacts / changes. Follow any directions from Marine Pilots. Contact all vessels berthed to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. 	<ul style="list-style-type: none"> Monitor storm path and consider proximity and direction of storm on Weatherzone app. For planned mooring activities, liaise with VTS (Vessel Traffic Services) in the first instance if unable to contact Marine Pilot on VHF radio. Follow any directions from Marine Pilots. Contact all vessels berthed to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. Check shore brow is positioned correctly. Assess if the brow should remain on vessel. 	<ul style="list-style-type: none"> Contact all vessels berthed to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. For planned mooring activities, liaise with VTS (Vessel Traffic Services) in the first instance if unable to contact marine pilot on VHF radio. Follow any directions from marine pilots. Personnel to remain in a designated safe area.

4.4 Appendix 4 - Wind TARP

WORK GROUPS	LEVEL 1 Actual wind trending 35 – 50 km/h (18 – 27 knots, 9m/s – 13m/s)	LEVEL 2 Actual wind trending 50 – 70 km/h (27 – 38 knots, 13m/s – 19m/s)	LEVEL 3 Actual wind trending greater than 70 km/h (38 knots, 19m/s)
All Departments – All direct leaders	<ul style="list-style-type: none"> Communicate weather conditions to relevant personnel based on work task applicability. Review weather forecast and work practices to plan for activities suitable for conditions (e.g. consider crane and lifting operations, scaffolding, and work at heights). 	<ul style="list-style-type: none"> Communicate weather conditions to all personnel (including contractors). Review weather forecast and work practices to plan for activities suitable for conditions. Direct workers to consider wind conditions in relation to their tasks in outdoor/exposed areas e.g. additional controls may be required for housekeeping, loose objects. Regular inspections and housekeeping of any equipment / debris that may become airborne. 	<ul style="list-style-type: none"> Communicate weather conditions to all personnel (including contractors). Review weather forecast and work practices to plan for activities suitable for conditions. Determine what outdoor and exposed tasks can continue and what tasks need to cease.
Production Terminal Supervisors	<ul style="list-style-type: none"> Regular stockpile inspections to occur. Ensure operators are utilising dust mitigation measures as identified as required. Ensure that vessel-mooring lines are tensioned and, if lines are not tensioned, contact vessel to remedy. Check shore brow is positioned correctly. Assess if the brow should remain on vessel. Risk assess movement of gangways on the wharf with mobile crane. Cease if deemed unsafe. Direct workers performing lifting operations to review wind speed maximum figures stated by crane manufacturer and ensure lifting activities cease when wind speeds exceed these. Lifting operations to cease at 12m/s or in 	<ul style="list-style-type: none"> Monitor shipmooring activities. Liaise with Marine Pilots as required and follow directions from Marine Pilot and prepare/action as necessary. Shiploading operations to be monitored (e.g. direct operators to notify Supervisors of 'high' alarms) and advise of protection to be applied as required based on alarms (e.g. shiploader boom moved to safer position where possible). Contact all vessels berthed at RGTCT to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. Regular stockpile inspections to occur. Utilise dust mitigation measures as identified as required. 	<ul style="list-style-type: none"> Monitor shipmooring activities. Liaise with Marine Pilots as required and follow directions from Marine Pilot. If at berth, wait in vehicle / safe and sheltered location until further instructions from Marine Pilot. Contact all vessels berthed at RGTCT to warn of weather event and the requirement to ensure all vessel-mooring lines are tensioned. Shiploader to cease loading. Direct shiploader operators to: <ul style="list-style-type: none"> Travel shiploader to storm lock position and manually put locking pins into designated position in wharf (refer to Lockdown for RGTCT Shiploaders Work Instruction). Regular stockpile inspections to occur. Utilise dust mitigation measures as identified as required.

	accordance with manufacturer specifications.		
Maintenance Supervisors	<ul style="list-style-type: none"> • Direct workers performing lifting operations / work at height to review wind speed maximum figures stated by crane/EWP etc. manufacturer and ensure activities cease when wind speeds exceed these. Lifting operations to cease at 12m/s or in accordance with manufacturer specifications. • Review planned lifts – wind considerations to be made when lift planning. Lift plan / risk assessment to consider the impact of wind. • Direct a competent person to provide advice on safe lifting conditions for the wind for non-standard lifts, suspended loads or lifts with large surface areas. • Liaise with barge operators to assess conditions where JLGs are operating on barges. Follow barge operators' directions. • Monitor blasting encapsulation. • At 25 knots, direct blasting activities to cease. • Refer to scaffold manufacturer installation instructions for wind rating. Where wind rating is trending to exceed / approaching limit, tie down boards or remove boards as required based on scaffold manufacturer's instructions and conditions. 	<ul style="list-style-type: none"> • Direct and ensure no work at heights occurs. 	<ul style="list-style-type: none"> •
Earthworks Supervisors	<ul style="list-style-type: none"> • Increase frequency of water truck usage as identified and as required. 	<ul style="list-style-type: none"> • Increase frequency of water truck usage as identified and as required. • Monitor dust generation and modify operations to ensure excessive dust does 	<ul style="list-style-type: none"> • Modify operations to ensure excessive dust is not leaving the site boundary in the direction of the nearest sensitive receptor. • Modify works/equipment to minimise dust leaving the site boundary.

		not create a nuisance to nearest sensitive receptors.	
Logistics			<ul style="list-style-type: none"> Monitor and liaise with shipping and rail stakeholders as required (e.g. any interruptions or changes).
GPC Contractor Supervisors	<ul style="list-style-type: none"> Review contractor activities and ensure appropriate risk assessments / risk management / changes to work practices are occurring based on conditions. Ensure crane/lifting operations to cease when wind speeds are trending to exceed maximum figure stated by crane/EWP etc. manufacturer. Lifting operations to cease at 12m/s or in accordance with manufacturer specifications. Lift planning – ensure wind considerations are made when lift planning. Lift plan / risk assessment to consider the impact of wind. Ensure non-standard lifts, suspended loads or lifts with large surface areas utilise a competent person to provide advice on safe lifting conditions for the wind. Monitor blasting encapsulation. When wind reaches 12m/sec, blasting activities to stop. Scaffolding contractors – Ensure to respond appropriately to restrain boards etc. as required for conditions. 	<ul style="list-style-type: none"> Review contractor activities and ensure appropriate risk assessments / risk management / changes to work practices are occurring based on conditions. Ensure no work at heights occur. 	<ul style="list-style-type: none">
Control Room Operators	<ul style="list-style-type: none"> Monitor dust monitors, weather conditions and cameras. 	<ul style="list-style-type: none"> Monitor dust monitors, weather conditions and cameras. 	<ul style="list-style-type: none"> Monitor dust monitors, weather conditions and cameras.
Shiploader Operators	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> For wind speeds trending up to 70kph (shiploader operators have acknowledged high alarms due to wind speed of 60kph for period of 30 seconds), notify 	<ul style="list-style-type: none"> Shiploader to cease loading and be clear of vessel structures. Notify Supervisor when this occurs.

		Supervisor and follow direction regarding shiploading protection measures.	
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4.5 Appendix 5 - Rain TARP

WORK GROUPS	LEVEL 1 Periods of actual rain – 50mm to 100mm rain received within 24 hours Weatherzone – Heavy rainfall risk (Green < 4.7 mm/h)	LEVEL 2 Forecast rain – 100mm to 150mm (or more) within next 24 hours	LEVEL 3 Periods of actual rain – More than 100mm rain received within 24 hours Weatherzone – Heavy rainfall risk (Red > 6.25 mm/h)
All Departments – All direct leaders	<ul style="list-style-type: none"> • Communicate weather event to all personnel. • Ensure equipment is secured and away from stockpiles, drains and waterways and on higher ground where possible. • Ensure inspection of ground conditions prior to operating any mobile equipment or light vehicles. • Use of electrical power tools to stop in outdoor exposed locations. • Communicate requirement to conduct PORT and assess ground conditions/visibility prior to operating light vehicle during rain event. 	<ul style="list-style-type: none"> • Review planned work activities for coming 24 hours and plan for any adjustments / considerations based on forecast. • Ensure equipment is secured and away from stockpile, drains and waterways and on higher ground where possible. 	<ul style="list-style-type: none"> • Communicate weather event to all personnel (including contractors). • Ensure equipment is secured and away from stockpiles, drains and waterways and on higher ground where possible. • No use of electrical power tools in outdoor exposed locations. • Direct outdoor/exposed tasks during rain events to cease (other than Supervisor approved activities e.g. attendance to urgent breakdowns). • Communicate requirement to conduct PORT and assess ground conditions/visibility prior to operating light vehicle during rain event. • Direct non-essential light vehicle travel around site to cease. Travel would be considered essential in the event of stockpile, sump and stormwater inspections etc.
Production Terminal Supervisors	<ul style="list-style-type: none"> • Review DOOP Total Rainfall data for the last 24 hours to assist with reviewing work activities. • Stockpile management activities as required. • Stockpile inspections and risk assessments. Ensure Coal to Coast Stockpile Inspection Risk Assessments are up to date. 	<ul style="list-style-type: none"> • Stockpile management activities as required. • Stockpile inspections and risk assessments. Ensure Coal to Coast Stockpile Inspection Risk Assessments are up to date. • Stormwater management and dewatering processes as required through Procedure and work instructions 	<ul style="list-style-type: none"> • Shiploading, train unloading and dozer operations can continue dependent on rain rate (mm/h as identified on Weatherzone), visibility, stockpile conditions/saturation and customer requirements. Where visibility is impacted, stockpile inspections determine unsafe dozer access or coal saturation or customers' directions require it, direct the activity to cease.

	<ul style="list-style-type: none"> • High-risk stockpiles – shut / barricade nearby roadways and communicate. • Medium risk stockpiles – monitor. • Communicate and initiate requirement for wet weather changeover protocols. • Utilise Avigilon cameras to perform site checks and assess conditions where necessary. • Run mainland belts without product to remove excessive water where required. • Where wharf belts are required to be run to remove excessive water ensure there is no coal on the wharf belt. If the system is to run, performed checks for coal on belt and shiploader is in hatch for start. Refer to Instructions - #1645165, #1641743, #1648288. • Prepare and plan for any required pumping and dewatering activities and ensure all equipment is functioning. • Stormwater management and dewatering processes as required through Procedure and work instructions (Stormwater release from site flow chart - #1468756). • Inspection of drains and collection pits to ensure they are clear. Clean up as required. • Inspection of sump pumps (ensure they are operational) and relocate to higher ground where possible. 	<p>(Stormwater release from site flow chart - #1468756).</p> <ul style="list-style-type: none"> • Inspection of drains and collection pits to ensure they are clear. Clean up as required. • Clean up coal spillages around site. • Inspection of sump pumps (ensure they are operational) and relocate to higher ground where possible. • Secure equipment away from drains and waterways and on high ground where possible. • Inspection of bunds and ensure clean and free of contaminants. • Minimise portable bunding in exposed areas / non-essential work areas and instead utilise additional waste services. • Ensure SPDs are covered. • Ensure all feeder gates non-operating tunnels are closed. 	<ul style="list-style-type: none"> • Stockpile management activities as required. • Perform Stockpile Inspections and Risk Assessments to assess condition of stockpiles for saturation and safe dozer access. Ensure Coal to Coast Stockpile Inspection Risk Assessments are up to date. • High-risk stockpiles – shut / barricade nearby roadways and communicate. • Medium risk stockpiles – site communications of risk and potentially affected roadways. • Discuss condition of coal on stockpiles with coal agents. • Communicate and initiate requirement for wet weather changeover protocols. • Utilise Avigilon cameras to perform site checks and assess conditions where necessary. • Run mainland belts without product to remove excessive water where required. • Where wharf belts are required to be run to remove excessive water ensure there is no coal on the wharf belt. If the system is to run, ensure to perform checks for coal on belt and shiploader is in hatch for start. Refer to Instructions - #1645165, #1641743, #1648288. • Perform pumping and dewatering activities, as required, and ensure all equipment is functioning. • Stormwater management and dewatering processes as required through Procedure and work instructions (Stormwater release from site flow chart - #1468756).
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			<ul style="list-style-type: none"> • Monitor for sump pump faults at tunnel entrances.
Maintenance Supervisors	<ul style="list-style-type: none"> • Assess risk of confined space work based on location. Direct no confined space work to occur where water inrush / rain may enter the space while working in the space. • Direct outdoor exposed electrical work to stop in rain events unless critical / essential (e.g. urgent breakdown as approved by Supervisor). • Direct blasting and painting activities occurring in outdoor exposed locations to cease in rain events. Pre-blasting for structural inspections can continue. 	<ul style="list-style-type: none"> • Minimise any portable bunding in exposed areas / non-essential work areas and instead utilise additional waste services. • Inspection of workshop and surrounding area bunds before rain events and ensure clean and free of contaminants. 	<ul style="list-style-type: none"> • Cease outdoor/exposed maintenance tasks including confined space, outdoor exposed electrical work, blasting and painting etc. Supervisor to approve workers performing urgent breakdown activities.
Earthworks Supervisors	<ul style="list-style-type: none"> • Review work plan and excavation / earthwork activities. Modify or cease work as required (e.g. if ground is boggy/unstable). • Prepare and plan for any required pumping and dewatering activities and ensure all equipment is functioning. • Stormwater management and dewatering processes as required through Procedure and work instructions (Stormwater release from site flow chart - #1468756). • Inspection of pumps (ensure they are operational) and relocate to higher ground if required. • Inspection of bunds and ensure clean and free of contaminants. 	<ul style="list-style-type: none"> • Inspection of pumps (ensure they are operational) and relocate to higher ground if required. • Inspection of bunds before rain events and ensure clean and free of contaminants. • Inspection of drains and collection pits to ensure they are clear. Clean up as required. • Secure equipment away from drains and waterways and on high ground where possible. 	<ul style="list-style-type: none"> • Cease excavation / earthwork activities. • Pumping and dewatering activities as required. • Stormwater management and dewatering processes as required through Procedure and work instructions (Stormwater release from site flow chart - #1468756).
Logistics	<ul style="list-style-type: none"> • Liaise with stakeholders as required in the event of any cross contamination, loss of product, operational shutdowns, wet stockpiles, rail stoppages, total moisture limit loading / unloading actions etc. 		<ul style="list-style-type: none"> • Liaise with stakeholders as required in the event of any cross contamination, loss of product, operational shutdowns, wet stockpiles, rail stoppages, total moisture limit loading / unloading actions etc.

	<ul style="list-style-type: none"> • Issue terminal notices as required for any significant time delays. 		<ul style="list-style-type: none"> • Issue terminal notices as required for any significant time delays.
GPC Contractor Supervisors	<ul style="list-style-type: none"> • Monitor stockpiles around contractor access areas and communicate with Production Terminal Supervisors as required. • Review stockpile access permits and amend as necessary. • Assess risk of confined space work based on location. No confined space work to occur where water inrush / rain may enter the space while working in the space. • Blasting and painting activities occurring in outdoor exposed locations to cease in rain events. Pre-blasting for structural inspections can continue. 	<ul style="list-style-type: none"> • Minimise portable bunding in exposed areas / non-essential work areas and instead utilise additional waste services. 	<ul style="list-style-type: none"> • Monitor stockpiles around contractor access areas and communicate with Production Terminal Supervisors as required. • Review stockpile access permits and amend as necessary. • Cease outdoor/exposed tasks such as confined space, outdoor exposed electrical work, blasting and painting etc.
Control Room Operators	<ul style="list-style-type: none"> • Monitor site cameras and advise Supervisors of any safety concerns. 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Monitor site cameras and advise Supervisors of any safety concerns.

4.6 Appendix 6 - Hail TARP

WORK GROUPS	LEVEL 1 N/A	LEVEL 2 Hail warning issued	LEVEL 3 Hail occurring
All Departments – All direct leaders		<ul style="list-style-type: none"> • Communicate to all personnel on site the possibility of hail. • Review weather forecast, weather system tracking and current work activities to plan for activities to cease or continue. • Direct workers to make work area and activities safe and prepare to move indoors or to designated safe / sheltered area. • Equipment to be secured undercover (where possible). • Light vehicles to be parked undercover (where possible). 	<ul style="list-style-type: none"> • Direct outdoor (exposed, uncovered) activity to cease and workers to remain indoors (e.g. crib rooms, workshops) or in sheltered area not exposed to weather conditions. • Direct mobile equipment operators to remain inside the cab of machine if worker has not returned to crib room etc. • Confirm workers are protected and not exposed to weather conditions.
GPC Contractor Supervisors		<ul style="list-style-type: none"> • Ensure all contractors onsite have been notified of current weather system status and are making appropriate preparations for their personnel. 	<ul style="list-style-type: none"> • Confirm contractors are protected and not exposed to weather conditions.
Earthworks Supervisors		<ul style="list-style-type: none"> • Communicate to all personnel on site the possibility of hail. • Direct mobile equipment operators to relocate to mobile equipment designated parking area and stay in the cab of the machine and/or direct/collect personnel to crib rooms and await further instruction. • Direct trucks to return to closest truck parking area if safe to do so or park on site in the mobile equipment parking area and remain in the truck cab • All personnel are to follow directions of Supervisors and stay inside the vehicles/crib room and await further direction by the Supervisor. 	<ul style="list-style-type: none"> • Direct all personnel to remain in a designated safe area or inside the cab of the machine. • Supervisor to communicate via two-way confirming all operators are protected and not exposed to weather conditions. • Supervisor to advise all personnel to remain in a designated safe area/cab of machines until Supervisor gives the all clear to recommence operations.

4.7 Appendix 7– Revision history

Revision date	Revision description	Author	Endorsed by	Approved by
16/12/20	Initial document creation	Kirsty Iszlaub, Acting Safety & Training Specialist – Systems Michael Breadsell – Loading Production Superintendent	Tony Young, Safety & Training Manager	Tony Young, Safety & Training Manager
09/04/2021	Updates to triggers and actions following incident at RGTCT.	Kirsty Iszlaub, Safety & Training Specialist – Systems Michael Breadsell – Loading Production Superintendent	Tony Young, Safety & Training Manager	Tony Young, Safety & Training Manager
11/11/2021	Updates to Production Supervisor requirements.	Kirsty Iszlaub, Safety & Training Specialist – Systems Michael Breadsell – Loading Production Superintendent	Tony Young, Safety & Training Manager	Tony Young, Safety & Training Manager
07/03/2023	Broaden scope to be GPC wide. Amendments to Production Supervisor requirements – DTA.	Chris Bax, Safety Specialist	Tony Young, Safety & Training Manager	Tony Young, Safety & Training Manager