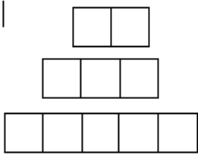
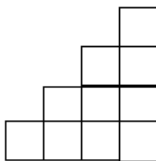
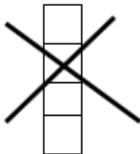


TYNE Integrated Management System

Standard Operating Procedure – 05 Weather Monitoring & Container Park Securement During Unstable Weather

TASK SUMMARY	
Purpose	<ul style="list-style-type: none"> This procedure is to ensure specific processes are followed when dealing with empty during unstable weather and/or when there is potential for unstable weather.
Scope	<ul style="list-style-type: none"> This procedure will apply to all workers managing empty containers on TYNE sites. This procedure applies to all Tyne Container Services depots/yards
Responsibilities	<ul style="list-style-type: none"> Managers/Supervisors: MUST ENSURE that workers are correctly trained in this SOP and ensure that they understand and comply with this SOP at all times.
Identified Risks and Control Measures	<ul style="list-style-type: none"> Incorrect stacking of containers could cause container stacks to become unstable and fall over during high winds. When stacking any containers, ensure that they are neatly stacked corner casting to corner casting with no gaps between the sidewalls. Make sure that only gaps of required distance are left between the corner ends to allow easy stacking and removal (refer to below diagram). Do not remove containers that are “hooked” or “lipped”. If this is required, notify leading hand or supervisor for further instructions. Containers MUST NOT be placed on designated walkways <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Right</p>  </div> <div style="text-align: center;"> <p>Incorrect method in high winds</p>  </div> <div style="text-align: center;"> <p>Incorrect method</p>  </div> </div>
Identified Risks and Control Measures	<ul style="list-style-type: none"> Do not park forklifts directly adjacent to high stacks. Forklifts to be parked only in designated parking areas. When stacking and removing containers ensure that no individual containers are left standing alone on top of stacks at any given time. Single stacks of more than 3 containers are not to be left at the end of the day. This is to be continually monitored by all forklift operators, Manager and Supervisors. Pyramid stacking is to be monitored and adhered to at all times where possible. Single containers must always be made safe and placed next to other containers. When stacking empty containers, ensure that they are stacked no higher than as follows: <ul style="list-style-type: none"> 40ft Containers – maximum of four containers high – (4) high – Punchbowl and Tempe 40ft Containers – maximum of six containers high – (6) high – MT Movements ONLY 20ft Containers – maximum of four containers high – (4) high – Punchbowl and Tempe 20ft Containers – maximum of six containers high – (6) high – MT Movements ONLY This is to be continually monitored by all forklift operators and Manager / Supervisors. No forklift driver or yard staff should attempt to save containers during high winds. Dislodged containers must not be moved until the “All Clear” signal has been given by the Manager / Supervisor. Forklift Operator must ensure when loading containers on flat surface ground, all four corner casts meet the surface. If one cast is off the ground, this shows evidence of uneven ground. If it is noted that there is uneven ground, the forklift operator must report specific areas of concern to their Supervisor. The Supervisor/Manager are to then engage ground maintenance contractor to

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	<p>grade/mend the surface to make it suitable for the first container to sit with all four casts on the ground. DO NOT STACK ON UNEVEN GROUND.</p> <ul style="list-style-type: none"> Forklift Operator must be aware of condition of site pavement and immediately report any potholes or surface irregularities, which may affect forklift operations, to their Supervisor/Manager. The affected area is to be excluded/barricaded from use. Forklift Operators must exercise care when entering and leaving stack areas and adhere to safe work practice. Truck drivers must ensure container doors are secured prior to entering the yard. No Forklift Operator is to lift a load that exceeds manufacturers safe working load recommendations; refer to manufacturers plate specifications on the forklift. If an incident or collision occurs, stop all movements of the forklift, remain at the controls and notify the Manager / Supervisor for further instructions. All drivers are to be site inducted and follow site rules, including remaining in their truck cabin or in driver safe zones when loading or unloading. Couriers, visitors and other vehicles are not to park in the yard. All vehicles must park in designated parking bays as per the traffic management plan. 	
PPE	<ul style="list-style-type: none"> High visibility clothing and safety steel capped footwear must be worn all at the times. 	
Site Speed Limit	Speed limits may vary individual sites. All personnel must adhere to the site speed limit.	
	Tempe	15 km/h
	Punchbowl	5 km/h
	MT Movements	10 km/h
Precautions to be exercised	<ul style="list-style-type: none"> Ensure this procedure is read in full and understood. 	
Relevant Personnel to be Trained and Trainer/Assessor Qualification	<ul style="list-style-type: none"> All TYNE workers must be trained in this procedure and must be able to explain the steps and then correctly perform. 	
Relevant Legislation/ Standard	<ul style="list-style-type: none"> Work Health and Safety Act 2011 & Regulation 2017 (NSW), Shipping Container Storage Act Oct 2015/Planning Act, Australian Standard – 3711.10-2000 Freight Containers. CoR RMS Legislation http://www.rms.nsw.gov.au/business-industry/heavy-vehicles/safety-compliance/chain-of-responsibility/index.html NHVR – National Heavy Vehicle Regulator. https://www.nhvr.gov.au/road-access/mass-dimension-and-loading/loading 	
Forms relevant to SOP		
Review of SOP	<ul style="list-style-type: none"> During situations of unstable weather conditions this procedure is to be activated please make notes of improvements/corrective actions raised during these situations that can be used when reviewing this procedure to improve the process. 	
Method of communication of SOP to relevant personnel:	<ul style="list-style-type: none"> Hard and soft copy of SOP In house training by Manager/Supervisor using the Competency Assessment Form. 	

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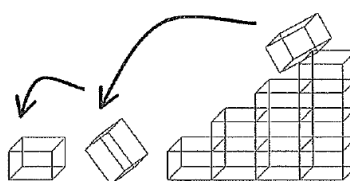
Standard Operating Procedure – 05 Weather Monitoring & Container Park Securement During Unstable Weather

PROCEDURE

STEP #	TASK DESCRIPTION																														
Weather Monitoring																															
1.0	<p>The Manager /Supervisor is responsible for checking and monitoring the weather each day and constantly on high wind days.</p> <ul style="list-style-type: none">All Senior Managers and Depot Managers must be registered on the Early Warning Network (EWN). The EWN sends email and text alerts relating to all TYNE sites nationwide when there are forecast winds over 45km/h in the next 24-hours.All Managers must have access to Monitor Weather via Environdata's WeatherMation LIVE service (http://www.weathermation.net.au) for site-specific wind conditions from the Environdata Wind Warning Systems installed at site.Upon receipt of the EWN alerts via email or text become pro-active to minimise high risk stacks (single stacks, one off containers).																														
1.1	<p>If there is any possibility of an unstable weather front, the Manager/Supervisor must monitor the website at 15-minute intervals throughout the day.</p> <ul style="list-style-type: none">A computer monitor must be left open to the Manager/Supervisor monitoring high wind activity.																														
1.2	<p>Whilst each state has a wind velocity meter and alarm system, it is important that the site Manager/Supervisor make a call to secure the yard in sufficient of time prior to sirens when it becomes clear that unstable weather is imminent. This ensures securement of the yard is safe and possible.</p> <ul style="list-style-type: none">Waiting until the alarm sounds is too late.Refer wind velocity meters protocols as outlined below. <p><u>Wind Velocity Meter and Yard Securement / Evacuation Protocols</u></p> <p>Wind speed can be measured in varying terms. Consultants call it metres per second. Port Authorities measure it in nautical knots per hour. Land based operations have it as either KPH or MPH. We can use this following table to provide us with a useful tool when reacting to Wind Strength. FCL Containers @ Gross mass of 17 tonnes will start to drift at 50m per second. Empty FEU will drift @24m per second in a single tiered stack and 27m per second for those on two levels.</p> <table><tr><td>FCL</td><td>Metres</td><td>Knots</td><td>MPH</td><td>KPH</td><td>Stacking Conditions</td></tr><tr><td></td><td></td><td>25</td><td>28.78</td><td>46.3</td><td>Average Strong Wind Warning</td></tr><tr><td></td><td>24</td><td>46.63</td><td>53.67</td><td>86.4</td><td>FCL's should not move</td></tr><tr><td></td><td>27</td><td>52.46</td><td>60.38</td><td>97.2</td><td>FCL's should not move</td></tr><tr><td></td><td>50</td><td>97.14</td><td>111.81</td><td>180</td><td>17 tonnes or upward will not move at this velocity</td></tr></table>	FCL	Metres	Knots	MPH	KPH	Stacking Conditions			25	28.78	46.3	Average Strong Wind Warning		24	46.63	53.67	86.4	FCL's should not move		27	52.46	60.38	97.2	FCL's should not move		50	97.14	111.81	180	17 tonnes or upward will not move at this velocity
FCL	Metres	Knots	MPH	KPH	Stacking Conditions																										
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	50	97.14	111.81	180	17 tonnes or upward will not move at this velocity																										

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Standard Operating Procedure – 05 Weather Monitoring & Container Park Securement During Unstable Weather

STEP #	TASK DESCRIPTION											
1.2	Empties	Metres	Knots	MPH	KPH	Stacking Conditions						
			25	28.78	46.3	Average Strong Wind Warning						
		24	46.63	53.67	86.4	FEU will start to drift if single at this speed						
		27	52.46	6.38	97.2	Next container will move at this speed						
		29	56.34	64.85	104.4	Next container will move at this speed						
		32	62.17	71.56	115.2	Next container will move at this speed						
		50	97.14	111.81	180	Next container will move at this speed						
		NOTE: Wind velocity effects on TEU's are not known.										
Wind Velocity Meter and Yard Securement / Evacuation Protocols												
1.3	<p>Upon the receipt of the SMS from EWN / WeatherMation the Managers/Supervisors must assess the report and if the warning is severe, convene a meeting with relevant personnel to ensure the yard is ready and secure for bad weather conditions. This committee must assess the report and the likelihood of any safety issues that may result using the data provided from the consultants and others.</p> <p>The following policy applies to managing high wind events at all TYNE sites</p> <table><tr><td>Wind Speed</td><td>Action</td></tr><tr><td>50 km/h</td><td>Warn operations of increased wind speed and cease High Carrying</td></tr><tr><td>55 km/h</td><td>Cease Operations, Close Facility</td></tr></table>						Wind Speed	Action	50 km/h	Warn operations of increased wind speed and cease High Carrying	55 km/h	Cease Operations, Close Facility
Wind Speed	Action											
50 km/h	Warn operations of increased wind speed and cease High Carrying											
55 km/h	Cease Operations, Close Facility											
1.4	<ul style="list-style-type: none">All administration and office staff are to remain indoors during high wind warnings unless directed otherwise by Management.If there is sufficient evidence of danger, the Manager/Supervisor will instruct all forklift operators and ground personnel to take appropriate safety precautions to secure single stacks or a one off container on top of stacks and if deemed necessary shut the site down. Manager / Shift Supervisor to ensure NO pedestrians (including container, refer monitors, road transport drivers, wash pad and other external parties) are in the yard areas during wind periods in excess of 50 km per hour.Appropriate perimeter buffers must be taken into consideration when identifying the risks. The roll down momentum requires a buffer perimeter of 9.14m. 											
1.5	<p>Upon the wind alarms sounding more than twice in any 5-minute intervals, the Site Manager/Supervisor must make the call to evacuate the yard.</p> <ul style="list-style-type: none">No pedestrians (including container, reefer monitors, road transport drivers, wash pad and other external parties) are allowed in the yard areas during wind periods in excess of 50km per hour.											

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STEP #	TASK DESCRIPTION
1.6	<p>Manager/Shift Supervisor must ensure there are NO container monitors, wash pad, forklift mechanics or other external parties in the yard areas during high wind periods.</p> <ul style="list-style-type: none"> They are to be advised to remain in office / building area until advised clear to return to yard areas.
1.7	<p>All trucks directed to yard for loading /unloading are to be directed to open areas or ordered out of the yard whilst wind ratings/ severe weather is monitored.</p> <ul style="list-style-type: none"> Loading bays in and around container stacks are NOT to be used during this period. Road transport drivers must ensure that trucks are NOT parked unnecessarily below high stacks of containers, if need be all trucks must be removed from yard to minimise the risk of falling containers on trucks.
1.8	<p>All external parties in office / building areas are to be advised the yard is closed and asked to leave site.</p>
1.9	<p>Wind speed is to be continually monitored at 15-minute intervals.</p>
1.10	<p>If the alarm is not activated within this time frame, and the weather monitor shows that the unstable front has passed, then a decision can be made to reopen the site.</p>
1.11	<p>Yard will be shut down if the constant wind speeds reach 55 KPH. The gates are to be closed and barriers installed e.g. a container placed blocking the entrance. When the 1 minute average wind speed on-site is measured at 55kph the amber alarm will trigger (currently set at 55kph).</p> <p>NOTE: The site can only be re-opened when the winds are below 50kph.</p>
Personal Protective Equipment	
2.0	<p>The following personal protective equipment must be used at all times when applying this procedure:</p> <ul style="list-style-type: none"> Steel capped safety boots compliant with AS/NZS 2210: and High visibility clothing including garments such as reflective striped high visibility vests, shirts and jackets etc. that comply with AS/NZS 4602:1999.
Responsibilities	
2.1	<p>Personnel – forklift operators, yard staff, office staff, visitors, outside customers to:</p> <ul style="list-style-type: none"> Participate in training and follow the instructions of managers relating to this procedure. Communicate with managers and report any deficiencies or breaches of this procedure. Comply with this procedure.
2.2	<p>Managers / Supervisors to:</p> <ul style="list-style-type: none"> Ensure the consistent application of this procedure across their site operations. Implement worker training, consultation and communication to ensure all relevant parties are competent in the application of this procedure (using the competency assessment form). Provide ongoing infield supervision of operations to ensure that all aspects of this procedure are complied with. Investigate all breaches of this procedure and instigate appropriate corrective action to prevent any re-occurrence.



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Induction confirmation:

This SOP has been developed in consultation with the workers and has been read and signed by all workers involved in this activity. I note that I have read and understood the above SOP and will ensure work is completed accordingly.

Date:	Name:	Signature:

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Standard Operating Procedure – 05 Weather Monitoring & Container Park Securement During Unstable Weather

COMPETENCY ASSESSMENT

To confirm acceptance and understanding of the requirements of this SOP, please complete and sign the below fields.

Questions	Answers	Competent (Y / N)
Who is responsible for checking and monitoring the weather each day?		
What is the website that the weather conditions can be checked on a daily basis?		
If there is a possibility of unstable weather, how often should you check during the day?		
Whilst each site has a wind alarm system, what should the Site Manager/ Supervisor do prior to any warning alarms are activated?		
Upon receiving severe weather warnings, what two (2) things should happen?		
Based on the table at point 1.3, what is the average strong wind warning when you have empty containers stacked?		
Based on the table at point 1.3, at what speed (KMH) would a FEU start to drift?		
Unless otherwise directed, where should all staff remain during warnings?		
When should you evacuate the yard?		
Are pedestrians (including container, reefer monitors, road transport drivers, wash pad and other external parties) are allowed in the yard areas during wind periods in excess of 50 kmh?		
Whilst winds are severe where should all heavy vehicles be directed for their safety?		
Whilst winds are severe at what interval should they be checked?		
At what wind speed can the site be reopened?		

Full Name:	
Position:	



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Company:		
Date:	___ / ___ / ___	
Signature:		
Date of Expiry: (2 Years from completion date)	___ / ___ / ___	
Signature and date of Trainer/Manager/Supervisor:		___ / ___ / ___

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DO NOT PRINT

COMPETENCY BASED ASSESSMENT ANSWERS

Questions	Answers	Competent (Y / N)
Who is responsible for checking and monitoring the weather each day?	Manager or Supervisor	
What is the website that the weather conditions be checked on a daily basis?	Australian Bureau of Meteorology http://www.bom.gov.au	
If there is a possibility of unstable weather, how often should you check during the day?	At 30 minute intervals	
Whilst each site has a wind alarm system as a Site Manager or Supervisor what should you do prior to any warning alarms are activated?	A call should be made to staff to secure the yard.	
Upon receiving of severe weather warning, what 2 things should happen?	1. Meeting with relevant personnel 2. Ensure the yard is ready and secure	
Based on the table at point 1.3, what is the average strong wind warning when you have empty containers stacked?	46.3 kmh	
Based on the table at point 1.3, at what speed (KMH) would a FEU start to drift?	86.4 kmh	
Unless otherwise directed, where should all staff remain during warnings?	Indoors	
When should you evacuate the yard?	Upon sirens going off and/or instructed by management.	
Are pedestrians (including container, reefer monitors, road transport drivers, wash pad and other external parties) are allowed in the yard areas during wind periods in excess of 50kmh? Yes or No	No	
Whilst winds are severe where should all heavy vehicles be directed for their safety?	To open areas or ordered out of the yard	
Whilst winds are severe at what interval should they be checked?	Every 15 minutes	
At what wind speed can the site be reopened?	Below 50kmh	

CHANGE CONTROL RECORD

Date:	Reason for Change:	Author:	Approved:	Approved:
6/12/19	Creation of SOP	(Compliance OH&S)		
11/12/19	Revision of SOP	(Compliance OH&S)		
21/01/20	Revision of SOP	(Compliance OH&S)		
05/02/20	Revision of SOP	(Compliance OH&S)		
12/02/20	Minor Amendment	(Compliance OH&S)		

NB. TYNE requires that all information contained within this document and attachments remains confidential within the company unless specifically given permission in writing.