

RECOMMENDED CODE OF PRACTICE FOR FREIGHT CONTAINER STACKING IN THE PORT OF FREMANTLE

1. Introduction

This "Code of Practice" is a voluntary guide to assist container park operators to alleviate the risk of freight containers causing harm to others by becoming airborne.

It is intended to be an interim measure until such time as a risk assessment is undertaken for each container park or an evaluation is conducted on the impact of inclement weather and strong wind loadings have on freight containers.

The recommended practices are to be considered in conjunction with AS3711.10-2000 by the park operators for implementation as part of their safety and risk management of the leasehold areas. The Code of Practice is not designed to replace the container park OH&S Management Plans, Risk Management Plans or Australian Standards but to complement and support these practices.

2. Objective

The objective of the Code of Practice is to introduce standard practices for the handling and securing of freight containers, particularly during inclement weather and strong wind conditions which may have an effect on the stability of the container stacks.

3. Australian Standards

Australian Standard – 3711.10-2000 Freight containers, Handling and securing, section 8, Stacking on the Ground, provides data on wind effects on block stacking of containers and aspects which can be introduced to reduce wind effects.

4. Stacking Options

Depending upon wind direction and height stacking, in addition to AS3711.10-2000 the following options should be considered by park operators:

4.1 Block Stacking

Block stack full containers of no more than 3 high and no less than 2 deep along the boundary fences to serve as a shield for empty containers or smaller stacks in the yard. The boundary stacks should be lashed or pinned down during strong winds.

4.2 Boundary Stacking

- 4.2.1 Each boundary stack should be levelled off to ensure there are no isolated containers on top of the stack.
- 4.2.2 Boundary full containers as well as empty containers are to be stacked in rows parallel to prevailing winds.
- 4.2.3 Boundary stacks are to be positioned so as to allow sufficient wind tunnelling.
- 4.2.4 Any isolated stacks to be placed appropriately behind boundary block stack which can serve as a shield.
- 4.2.5 Tiered stacking should be introduced on boundaries which are affected by strong winds.
- 4.2.6 End on stacking with suitable spacing on boundaries which are subject to strong winds.
- 4.2.7 Install barriers above boundaries in areas which are affected by strong winds.

4.3 Reduced Stacking

Park operators should consider introducing a process of reducing the stack heights of containers, particularly those situated in areas which are subject to strong winds, during warning periods.

4.4 Buffers

Creation of buffer areas inside yards during the seasonal weather periods should be considered particularly in areas which are subject to strong winds.

5. Processes

Container park operators are to include in their park operation processes, protocols for monitoring and assessing stacking performances for different weather conditions, after hours and week-end situations.

6. Early Warning Devices

The installation of wind anemometers programmed for the wind loading conditions applicable to their location will provide an early warning when wind gusts reach unsafe working conditions.

Concurrently, the operation of wind anemometer devices should include regular calibration if required and processes for reducing working activity and stacking capacity during warning periods.

Remote warnings systems for after hours and week-end situations should be considered.

7. Disclaimer

This Code of Practice is prepared by Fremantle Port Authority in good faith and as a guide only with the intention of seeking to reduce the risk of containers becoming airborne. The contents of this Code of Practice may not be interpreted in a way that is detrimental to Fremantle Port Authority on the basis that Fremantle Port Authority prepared this Code of Practice. Fremantle Port Authority is not responsible for the consequences of any act or omission by any person in reliance of this Code of Practice and Fremantle Port Authority expressly disclaims all responsibility and liability to any person (whether a container park operator or not) in respect of any loss or damage (including consequential loss or damage) that may arise directly or indirectly from any act or omission by any such person in reliance on this Code of Practice. Any person who directly or indirectly relies on the terms of this Code of Practice hereby releases the Fremantle Port Authority absolutely from any liability for any loss or damage arising directly or indirectly from any act or omission by such person in reliance on this Code of Practice.