SS 684:2022 (ICS 03.220.20; 55.180.10)

SINGAPORE STANDARD Code of practice for container depot operations





(ICS 03.220.20; 55.180.10)

SINGAPORE STANDARD

Code of practice for container depot operations

Published by Enterprise Singapore

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying and microfilming, without permission in writing from Enterprise Singapore. Request for permission can be sent to: standards@enterprisesg.gov.sg.

© Enterprise Singapore 2022

ISBN 978-981-5073-00-3

Contents

Forew	ord	4
0	Introduction	5
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4	General requirements	7
4.1	Design consideration	7
4.2	Risk management	8
5	Container stacking	9
5.1	Stacking requirements	9
5.2	Stacking patterns	9
6	Survey	13
6.1	Location of the survey area	13
6.2	Size of the survey area	13
6.3	Inspecting the interior of a container	13
6.4	Working at heights	13
7	Workplace traffic management	13
7.1	General	13
7.2	Gate width	14
7.3	Space for equipment and vehicle manoeuvring	14
7.4	Pedestrian and vehicular lane	14
7.5	Speed limit	15
8	Other layout and safety considerations	15
8.1	Equipment capabilities	15
8.2	Driving under suspended load	15
8.3	Office safety	15
8.4	Maintenance and repair area	16
8.5	Washing area	16
8.6	Lighting	16
8.7	Dangerous goods storage	16
8.8	Fatigue management	16
8.9	Perimeter fencing	16
8.10	Fire safety	17
9	Generic process	17
9.1	Gate-in	17
9.2	Gate-out	18
	2	

9.3	Stock and quality management	18
Annex		
A	Recommended practices in container depot operations	19
Figures	5	
1	Example of acceptable stacking pattern (containers are stacked parallel to the boundary of the depot)	10
2	Example of acceptable stacking pattern (containers are stacked perpendicular to the boundary of the depot)	10
3	Example of unacceptable stacking pattern (over stacked containers in the 2 nd row)	11
4	Example of unacceptable stacking pattern (over stacked containers in the 1 st and 3 rd row)	11
5	Example of unacceptable stacking pattern (insufficient distance between containers and the boundary of the depot)	12
6	Example of unacceptable stacking pattern (misaligned containers in the stack)	12
Bibliogr	aphy	21

Foreword

This Singapore Standard (SS) was prepared by the Working Group on Container Depot Operations set up by the Technical Committee on Logistics under the purview of the Trade and Connectivity Standards Committee.

This standard resulted from the review of TR 53 container depot operations. It was developed to ensure that container depot operations are carried out safely by different stakeholders. It strives to increase efficiency and minimise disputes from operations within the container depot by clarifying the working procedures and administrative work relating to operations in a container depot.

While there are existing codes of practice, e.g. "Code of Practice: Guiding Principles of Tank Container Depot-Client Management", published by the International Tank Container Organisation their requirements are not specific to our local needs. Hence this SS was developed for the container depot operations in Singapore.

It is presupposed that in the course of their work, users will comply to all relevant regulatory and statutory requirements. Some examples of relevant regulations and acts are listed in the Bibliography. The Singapore Standards Council and Enterprise Singapore will not be responsible for identifying all of such legal obligations.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all such patent rights.

NOTE

^{1.} Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "mature standards". Mature standards will not be subject to further review unless there are requests to review such standards.

^{2.} An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.

^{3.} Compliance with a SS or TR does not exempt users from any legal obligations.

Code of practice for container depot operations

0 Introduction

In this Singapore standard (SS), some primary configurations of container depot operations, which are stipulated for reference, comprise the conventional outdoor depots and depots within buildings.

Due to land constraints in Singapore, conventional container depot operators may store empty containers within buildings in the near future. Technology and automation can be used to enhance depot operations and increase stacking density and optimising storage space.

The use of automation in container depot operations could be the potential emerging industry trend and efforts were made to include such points of consideration.

In a conventional container depot, containers are brought to a pick-up/drop-off area, stacked by container-handling equipment. With the new concept of a container depot within buildings, there is a possibility to adopt technology to improve the efficiency and productivity of container depot operations through the use of automated rail-mounted overhead cranes which allows quick storage and retrieval as well as higher vertical stacking capacity.

1 Scope

This SS covers container depot requirements and operations with a systematic approach. It applies to all container depot operations with data verification/authentication for the acceptance of empty returns and collection of empty containers on the import and export segments of the land logistics supply chain. This SS includes specifications on data entries, including but not limited to, driver, vehicle and delivery details to ensure seamless flow of information to back-end administration.

2 Normative references

The following referenced documents are indispensable for the application of this SS. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- SS 510 Code of practice for safety in welding and cutting (and other operations involving the use of heat)
- SS 514 Code of practice for office ergonomics
- SS 528 Specification for personal fall-arrest systems
 - Part 1: Full body harnesses
 - Part 2: Lanyards and energy absorbers
 - Part 3: Self-retracting lifelines
 - Part 4: Vertical rails and vertical lifelines incorporating a sliding-type fall arrester
 - Part 5: Connectors with self-closing and self-locking gates
 - Part 6: System performance tests
- SS 531 Code of practice for lighting of work places Part 1: Indoor Part 2: Outdoor Part 3: Lighting requirements for safety and security of outdoor work places

SS 570 Specification for personal protective equipment for protection against falls from a height – Single point anchor devices and flexible horizontal lifeline systems