# **Guides to International Logistics**

The Practitioner's Definitive Guide

# Process-Driven Warehouse Operations

The Singapore Logistics Association with Teo Kee Boon

Straits Times Press

# About the SLA

Established in 1973, the Singapore Logistics Association (SLA) champions the causes of the logistics and freight forwarding industry in Singapore. Its vision is to be a major contributor to promote Singapore as a world-class hub. Its mission is to promote professionalism and excellence of the logistics industry. The association in close collaboration and consultation with government agencies, trade organizations, logistics professionals, academia and international organizations crafted its objects to:

- promote, protect and develop a sound logistics industry;
- develop, promote and enhance Singapore as a premium regional and international logistics hub with a reputation for reliability, integrity and high standards in logistics practice and management; and to
- · represent, protect and promote the general interests of members.

SLA has a membership of more than 430 companies. These are corporations that are drawn from a wide spectrum of the freight forwarding and logistics fraternity ranging from major global companies to local smaller service providers. Membership is voluntary. Ordinary membership is for Singapore incorporated companies actively engaged in the provision of logistics services for a period of not less than two years. Associate membership is open to incorporated or registered organizations, which are actively engaged in the provision of logistics and/or ancillary services.

SLA is one of the five industry associations that has been successfully awarded the Local Enterprise and Association Development (LEAD) funding in 2007. The award was presented at the third LEAD Forum held on 26 September 2007 by Mr Lim Hng Kiang, Minister for Trade and Industry.

For SLA, LEAD also encapsulates the key characteristics of the initiatives: Leadership, Excellence, Advancement & Dynamism. The SLA implemented 11 projects under LEAD. These projects support the association's four strategic thrusts namely Industry Branding & Benchmarking; Education & Training; Resource & Competence Development; and Business Facilitation & Development. SLA's initiatives will promote the growth of the logistics industry and help Singapore to maintain its leadership position as a regional logistics hub. SLA will commit a total of \$7 million to these projects.

Under the Resource and Competence Development, one of the projects identified is adoption of best practices. Through the development and publishing of a set of comprehensive books on best practices in logistics, the association endeavours to help logistics companies upgrade their process capabilities through a cost-effective medium. The Practitioner's Definitive Guide: Process-Driven Warehouse Operations is the third publication launched under the LEAD project following The Practitioner's Definitive Guide: Safety & Security (2009) and The Practitioner's Definitive Guide: Warehouse Practices (2008). These publications add to the association's publication series of Guides to International Logistics namely The Practitioner's Definitive Guide: Airfreight Forwarding (2005), The Practitioner's Definitive Guide: Seafreight Forwarding (2006) and The Practitioner's Definitive Guide: Multimodal Transport (2006).

# Preface

A staff working in any small business tends to be a jack of all trades. Likewise, in a small warehouse operation, the warehouse operator performs multiple tasks. He is the customer service officer who coordinates with customers on order fulfilment. He is also the floor operator who receives goods, puts away to storage, picks and packs orders, and releases them for shipment. The service level and efficiency of the operation is solely dependent on the staff. This is the way to manage cost for small operations. However, as the business grows, adding more staff to work in the same way is not an option as cost will grow at a faster rate than the growth of the business. Adding more staff without a proper operating structure will create conflict and encourage individualism, which will ultimately affect the service level of the warehouse.

The warehouse has no choice but to re-structure if it intends to grow and compete with international and well-established operators. It has to migrate towards a "process-driven" operation where there are well-defined processes upon which audit and training can be based on and upon which the warehouse can move towards a functional based working structure. It is a necessary step and probably a pre-requisite before any attempt can be made to introduce information technology into the warehouse operations.

In writing this book, I hope to provide the reader with a perspective of how a "process-driven" warehouse should operate. First, it is my belief that it is possible to define a set of standard working processes for a warehouse that a reader can use as a basis to review his/her current operations. Second, a warehouse should be organised by functions rather than by customer or individual staff capabilities. This book attempts to explain the approach and the rationale behind the functional organisation of a warehouse. Third, without information, it is not possible to manage. Without information, the warehouse manager and supervisor are reactionary and at the mercy of daily operations rather than be in control of them. It is also my belief that the warehouse manager and supervisor must start organising information that can be extracted at each stage of the warehouse process in order to help them plan, monitor and manage the day-to-day operations so better service can be delivered to the customer.

This is the sixth book in SLA's series, Guides to International Logistics. It is a supplementary read to the earlier book, *The Practitioner's Definitive Guide: Warehouse Practices.* It is written very much from the perspective of a 3PL provider managing a warehouse. It covers the detailed aspects of a typical warehouse operation and provides a comprehensive discussion on how each process in the warehouse is organised and executed. The book is organised into three parts.

**Part 1**: The first two chapters provide an overview of a "process-driven" warehouse operation. It attempts to explain the rationale for a warehouse to adopt a functional-based structure for the operations, guided by a set of well-defined processes. The operating assumptions used to describe the processes in the subsequent chapters are also outlined in this section.

Part 2: The next 10 chapters summarise the detailed processes of a warehouse, covering processes from receiving all the way to releasing. Each process is written with this approach. It first describes the scope and the objectives of the process. The key control points for the process are then highlighted. Finally, the detailed description of the process, together with flowcharts and sample forms used, will be covered.

**Part 3**: The last four chapters cover the two additional processes (replenishment and product recall) which may not exist for many operations and management and operational issues that a warehouse manager has to contend with in daily operations. It provides a framework for managing service failures and planning of daily operations.

I would like to express my sincere thanks to Geraldine Mesenas for editing the final manuscript. Last but not least, we would like to thank the members of SLA Training & Development Committee for taking time to provide invaluable comments for the book.

Teo Kee Boon

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