

ENHANCING SAFETY THROUGH IMPROVED WORKING CONDITION AT SCM ZONES IN LINE WITH OHSAS 18001, ISO 14001 AND ISO 50001 AT FAIVELEY TRANSPORT – A WABTEC COMPANY

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ABSTRACT

Stores and Logistic management is a means whereby the needs of internal and external customers are satisfied through integration and coordination of the supply chain. The main objective of the paper is to enhancing safety in logistics storage and Supply Chain Management (SCM).

The paper also discusses careful planning and a dedication to safety are top priorities for keeping warehouse, stores and logistics based employees' injury-free. Wherever there are shelves, pallets, and boxes, probability of danger exists. The author draws conclusion that Technology is a vehicle to enhance supply chain competitiveness and performance by enhancing the overall effectiveness and efficiency of logistics system and optimized inventory and improved safe working methods. Moreover, to make task easier and faster besides being less laborious.

Keywords— Safety in stores, warehouse, Supply chain Management, Working condition improvement, Safety Enhancement.

1. INTRODUCTION

Current business and organizational practices have led to an increased importance of supply chains to business strategy as well as within national and global economies. Nowadays, businesses increasingly rely on the outsourcing of parts of their activities and processes. Companies function and compete more and more on a supply chain level, in specific networks with their suppliers and service providers. This outsourcing trend and growing importance of supply chains has implications for the working conditions and health and safety of workers of both the supplier and the contracting companies. This project work presents some

general aspects of occupational safety and health (OSH) in supply chains and will examine the strategies and instruments used by companies to promote OSH practices in those networks. Stores and warehouse operators need to think with a focus on their safety during movement of materials to manufacturing sites and transport vehicles, warehouses also require attention.

Managers are also concerned about safety, but they focus more on where the company is headed, and how profitable it can be.

To make sure that a warehouse is both safe and efficient, managers and workers need to pull together to spot dangerous practices and plan ways to eliminate threats.

Companies need a culture of safety. Creating a safe work environment requires a good deal of effort, but it brings benefits to both workers and management.

Warehouse mishaps tend to be less severe than most manufacturing- and transportation-related accidents. Yet a series of relatively minor incidents can still seriously injure employees and lead to lost productivity and higher insurance bills.

The primary injuries occurring in warehouse and stores are stem from lifting, straining, and turning. Also, it leads to,

- slips, trips, and falls
- Ergonomic-related pains such as lifting, reaching, pulling, and pushing
- Material handling incidents such as dropped boxes and forklift accidents

Although not particularly severe, warehouse accidents are numerous - the warehousing and storage industry experiences nearly 15,000 injuries and illnesses each year.

2 LITERATURE SURVEY

Suppliers' or contractors' chain is most often ruled or governed by one company or organisation, the so-called 'focal' company. The focal company forms the centre of the supply chain and is provided with goods/materials from suppliers and concludes contracts with contractors who act as service or production providers. Within the suppliers' chain the focal companies, according to Seuring and Müller, are those companies that usually rule or govern the supply chain, provide the direct contact to the customer, and design the product or service offered. Focal companies of supply chains might be held responsible

for the environmental and social performance of their suppliers. This is especially the case for brand-owning companies.

For example, some fashion department stores were held responsible for occupational health issues at their suppliers in India, a NGO's research has disclosed, some major problems in the production of mobile phones and one of the electronics giants has revealed labour and safety abuses at companies that supply components for its products.

As a result, focal companies are taking proactive actions to promote better environmental and social, including OSH performance at their suppliers. Hence, the suppliers' chain can have a positive effect on the working conditions, safety and health of workers by promoting OSH improvements within the suppliers' organisations. Walters and James have reviewed several studies where the economic relations involved in the supply chain support improvements in health and safety arrangements.

This results from the ability of focal companies (as powerful supply chain actors) to make their suppliers adopt specified policies and practices. Such initiatives are in principle voluntary by their character and may emerge from companies' sustainability and corporate social responsibility (CSR) agendas Occupational safety and health management and corporate social responsibility or out of market based business considerations.

The economic dimension of occupational safety and health management, but most often through a process in which such approaches are influenced and shaped by external pressures such as legal demands and

demands by stakeholders, consumer groups and other social pressure groups. Within the contractors' chain the focal company is basically the host company or the client that outsources the task.

Whereas the promotion of OSH improvements in the suppliers' chain is mainly voluntary by nature and driven by external pressure, business advantages and sustainability agendas, companies are for the major part driven to pay attention to OSH in their contractors' chain, by requirements set in the national and relevant EU legislation (by the Framework Directive, Construct Sites Directive, and Procurement Directives. Apart from the legislative motivations, reputational risk is - also according to ESENER - another driver for OSH in the contracting chain.

This appears to be especially the case for focal companies and projects with a high visibility (such as big construction projects). Focal companies operating in traditional high risk sectors, such as the petrochemical industry, pay evidently more attention towards OSH matters in their contracting chain as unsafe practices can have serious consequences - for the concerned contractors but also for their own staff and surrounding environment.

Some focal companies are realising the importance of working with contractors and sub-contractors to pursue better OSH conditions and are putting in practice their own non-mandatory initiatives.

3 PROBLEM IDENTIFICATION

FTRTIL has more than 300 suppliers across India and foreign countries. The variety of component for various product verticals are spanning around 10000

in volume. Though it is due to increased business in one way, due to improper planning and management of inventory control.

Such sudden spurt in increased inventory, lead to want of space to store them and the organization decided to rent around 20000 Sqft of external space to store its materials. Obviously, the external warehouse is not build for ready to use and it has to be customized to the specific requirements of the organization.

4 PROPOSED METHODOLOGY TO IMPROVE SAFETY & WORKING CONDITION IN SCM ZONES - Job Safety Analysis

A job safety analysis can be performed for all jobs in the workplace, whether the job task is special (non-routine) or routine. Even one-step-jobs such as those in which only a button is pressed can and perhaps should be analysed by evaluating surrounding work conditions. Before actually beginning the job safety analysis, take a look at the general conditions under which the job is performed and develop a checklist. Below are some sample questions you might ask.

- Are there materials on the floor that could trip a worker?
- Is lighting adequate?
- Are there any live electrical hazards at the jobsite?
- Are there any chemical, physical, biological, or radiation hazards associated with the job or likely to develop?
- Are tools including hand tools, machines, and equipment in need of repair?
- Is there excessive noise in the work area,

hindering worker communication or causing hearing loss?

- Are job procedures known and are they followed or modified?
- Are emergency exits clearly marked?
- Are trucks or motorized vehicles properly equipped with brakes, overhead guards, backup signals, horns, steering gear, and identification, as necessary?
- Are all employees operating vehicles and equipment properly trained and authorized?
- Are employees wearing proper personal protective equipment for the jobs they are

performing?

- Have any employees complained of headaches, breathing problems, dizziness, or strong odors?
- Is ventilation adequate, especially in confined or enclosed spaces?
- Have tests been made for oxygen deficiency and toxic fumes in confined spaces before entry?
- Are work stations and tools designed to prevent back and wrist injuries?
- Are employees trained in the event of a fire, explosion, or toxic gas release?

JOB SAFETY ANALYSIS - FTRTIL

Job title: Stock loading		page 1/ JSA No. 001	Date: XXX	___ New ___ Revised
Title of person who does job:		loader	Supervisor:XXX	Analysis by: XXX
Company/organization: FTRTIL	Plant/location: HOSUR	Department: Packaging	Reviewed by: XXX	
Required and/or recommended personal protective equipment: Gloves, safety shoes, safety glasses, hard hats				Approved by: Xxx
Sequence of basic job steps	Potential hazards	Recommended action or procedure		
1. Remove box from conveyor and place on truck.	1a. Heavy boxes & improper hand placemen or handling method. (mashed fingers, hit elbows, strains)	1a. Use palmar grip, grasp bottom with one hand on bottom front corner and other hand on top opposite corner of other end. Keep one elbow into side. Turn body instead of twisting.		
	1b. Splinters (punctures)	1b. Wear gloves.		
	1c. Heavy boxes, poor grip, & improper shoes (foot injuries)	1c. Wear hard toe shoes.		
	1d. Unguarded v-belt (hand injuries).	1d. Guard v-belt with enclosure and keep in place.		
	1e. Truck parked too close or	1e. Park truck at a distance away from		

	too far from work area.(strains, boxes cropped on feet, (slips/trips/falls).	the body so that you are not required to twist the body and so that you have enough working room to avoid bumping into the conveyor or truck.
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5. CORRECTIVE ACTIONS

SI No	Hazards	Preventive methods
1	Working in heavy machinery like forklift	Ensured that all employees understood the potential hazards a forklift or other warehouse machines, through training and ensured that SOP followed
2	Slips and Trips	The below hazards were eliminated <ul style="list-style-type: none"> • Loose material such as sawdust • Liquids • Unnecessary steps or ridges • Boxes from the floor • Dark areas
3	Falls	Provision of guard railing, whenever there is a large drop between floors
4	Fire	The following hazards were avoided <ul style="list-style-type: none"> • Worn and exposed wires such as old extension cords • Leaking flammable fluids and gasses • Running electrical cords under carpet
5	Crushed	Moving machines and trucks in the loading dock have been avoided. Also, precautionary actions were taken to eliminate heavy materials that could fall on your employees
6	Exposure to Harmful Substances	Follow safety instructions mentioned in MSDS and in doubt please get clarified with direct managers

CONCLUSION

SCM, Stores and Warehouse managers know all too well that the task of managing operations is far from straightforward. Warehouse operations managers are tasked with ensuring the efficient flow of products in and out of the facility, optimizing the building's layout, making sure orders are fulfilled and products are in stock, but not overstocked. Add ensuring profitability and minimizing overhead and labor costs to the mix, and warehouse operators have their work cut out for them.

With so many factors to balance, considerations to weigh in every decision, and pressure from stakeholders on all sides to be more productive, minimize expenses, and maintain a smooth supply chain flow, it's no surprise that there are many articles and resources outlining best practices for warehouse operations. All these should be carried out with utmost safety to humans and equipment. We have recommended various safety methods to ensure them.

REFERENCES

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- 3 International Standard – ISO 50001
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- 7 Loss Prevention in Process Industries, Vol. 1&2, by Frank P Lees