

Safety in Warehouse & Logistics Industry

SANJAY BALMIKI, Dy. General Manager – Safety, Mahindra Logistics Ltd., Mumbai, Email: Balmiki.sanjay@mahindralogistics.com



1. Context:

Every day we influence the people around us in a positive or negative way by what we say or do not say, do or don't do. Being around people who promote, and practice safety creates a safer environment for everyone. People who are careless or don't feel they have time for safety create an unsafe environment in which to work, that's why best safety practices are important to create a safety culture.

This article is on the "Best Safety practices in warehousing" which helps to create a safe place to work in warehousing industry.

2. 'Safety Leader:

No matter what your position is, you can be a safety leader by quietly doing what is right and by recommending that others do the same. If someone asks your opinion about whether a safety precaution is necessary, be a proponent. You could be saving their life. Make sure that you:

- ◆ Do not take shortcuts
- ◆ Use guards and safety devices
- ◆ Focus on what you are doing – do not get distracted

Remember that not only your co-workers, but supervisors and visitors will observe what you do. Sloppy habits reflect a sloppy operation and make a poor impression. Be a safety leader. You will stay safe, and you can help others stay safe too.

3. Management Commitment:

The starting point for a good Health and Safety Program is a signed statement by management of their commitment to health and safety in the workplace. The assignment of

responsibility for the Health and Safety Program should be given to someone in the organization with authority to oversee changes and allocate appropriate resources. Once done it helps to drive safety at the workplace.

4. Warehousing Standards:

The National Logistics policy is a comprehensive effort to address cost and inefficiency by issues lying down an overarching interdisciplinary, cross-sectoral, and multi-jurisdictional framework for the developing entire logistics ecosystem. In the logistics sector Warehousing is important for storing, staking and delivery of raw material and finished goods in a safe manner along with the safety of employees and coworkers.

Warehousing is a fundamental component of modern supply chain management and plays a pivotal role in facilitating the efficient storage, management of inventory within a facility handling, and distribution of goods and products.

Warehouses come in various sizes and types, ranging from small-scale storage facilities to vast, automated distribution center's.

Warehousing involves the systematic storage and management of inventory, serving as a bridge between production and consumption.

Warehouse standards are a set standard of regulations that are put in place by OSHA and other regulatory agencies. Warehouse requirements state that every employer should provide a workplace free from recognized hazards and offer solutions as laid out in this pocket guide.

For Best warehousing safety practices, we can implement and practice the IMS (Integrated Management System) certification which comprises of three ISO standards:

- ◆ ISO 9001:2015: Quality Management System (QMS)





- ♦ ISO 45001: 2018: Occupational Health and Safety Management System (OH&SMS)
- ♦ ISO: 14001:2015: Environment Management System (EMS)

5. Best Warehousing Safety practices:

Preventing and reducing incidents at work should be one of the forefront issues for everyone at the workplace. The following Best Safety practices in warehousing provides information to assist in identifying, assessing and control the risks which can be categorized in 3 P's –People, Process and Planet

i. People:

• Employees Safety Training:

Safety training is plays vital role to drive safety in the warehouse as there is always ramp up and down of manpower. Dexterity Training Center is the best concept for delivering safety training to all workers and employees. Dexterity Training Center has its specialized

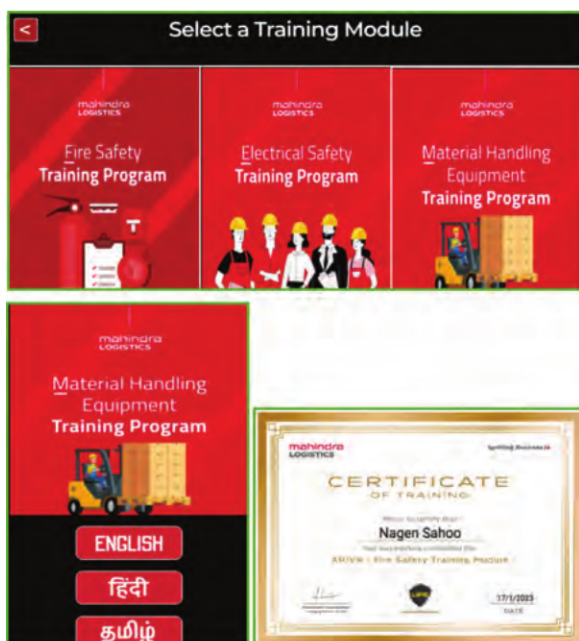
focus on enhancing and developing skills, hand-eye coordination. Dexterity Training Center contributes to safer, more efficient, and more productive.

• ARVR- Augmented Reality & Virtual Reality:

Fully immersive, computer-generated environments where users can practice skills and scenarios in a controlled, safe, and realistic setting. Learners actively engage with the training content, which can lead to deeper understanding and retention of knowledge and skills. Works on both Mobile and Laptop. Allowing learners to practice and refine their skills as many times as needed without prescheduling. 360-degree gaming experience in ARVR digital training module. Reduce the cost - associated with physical training facilities, materials, and travel.

• Women Safety Ambassador

The role of a Women Safety Ambassador is unique and significant in promoting and ensuring the safety and



well-being of women Encourage the involvement of women in Safety and nurture safety culture.



ii. Process:

• PRE / POST- GO LIVE INSPECTION Safety audit:

Pre/Post-GO LIVE inspections safety Audit help identify any potential safety hazards or code violations that need to be addressed before warehouse occupancy. Ensuring that the warehouse complies with safety regulations, building codes, and local laws Pre/Post- GO LIVE inspections are a prudent step to take to avoid potential issues and disputes in the future.



• Infrastructure Safety:

- ♦ Layout: One-way traffic system to avoid reversing, reducing the number of accidental collisions. Man, and material movement should be marked separately.
- ♦ Flooring: One-way traffic system to avoid reversing, reducing the number of accidental collisions. Man, and material movement should be marked separately.

- ♦ Racking System: External Inspection to be done along with rack stability certification. Daily checks and Damage to be repaired promptly. Display of safe working load along with training



- ♦ Road Safety: It includes marking for Zebra crossing, convex mirror, Dedicated Pedestrian Pathway, Speed Breaker, Breath Analyzing, GPS tracking for vehicle.

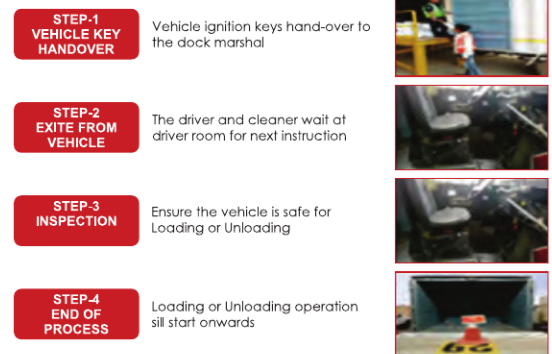
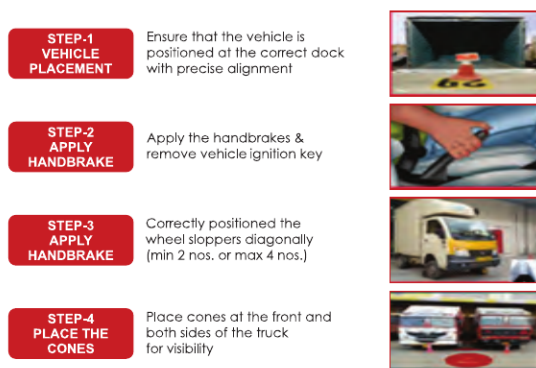




- ◆ **Dock Safety:** Dock Bumper- **Dock bumpers** are designed to absorb the impact and shock generated when a vehicle docks or undocks. **Dock Marking**- Assist drivers in aligning their vehicles accurately with the dock door and ensuring safe Dock separation cones- Cones guide vehicle operators to align their trucks and trailers accurately with the loading dock. **No man Zone-Effective** in Reducing risk of person being struck by vehicles, while docking.



- ◆ **Dock Management Procedure**- Systematic steps and protocols for managing loading and unloading operations at a facility's docks with vehicle key handling process. **Wheel Chock**- placement at vehicle to prevent vehicles from rolling away or moving unintentionally.



- **Fire Safety:** Warehousing should comply with state rules and Comply with National Building Code (NBC) guideline It should include the following as per requirement:
 - ◆ **Legal Compliance:** Fire NOC as per state fire safety rules, Emergency plan, conduct regular Mock drill, display of trained first aider and firefighter.
 - ◆ **Fire Pumps Room:** It includes a Jockey pump, Main Electric Pump and Diesel Pump and dedicated fire water storage tank and fire hydrants hose and hose reels as per rules and design specifications and calculation.
 - ◆ **Provision of required quantity of Fire extinguisher** as per IS2190, **Emergency exit doors** of two-hour fire rated with safe landing staircase with handrail, dedicated **Assembly point** primary and secondary with square box marking for standing, **manual call point**, **Fire alarm system**, public address system. Additional as per compliance need to have the emergency light of 2hour power back up, fire sprinkler system, smoke detection system like (Beam detector, VESDA, OSID)
 - ◆ **Safety signages:** It should include auto glow type for emergency exit arrow direction inside and outside the warehouse, floor arrow direction, Emergency layout, Assembly point, Fire extinguisher.





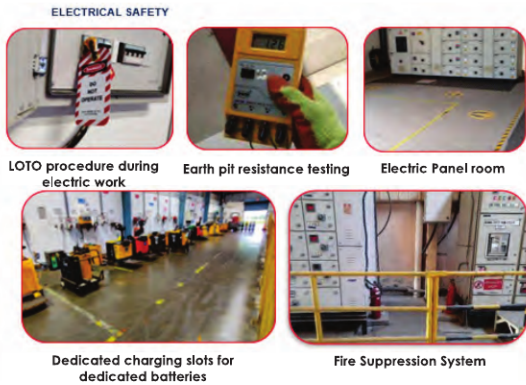
- Material Handling Equipment Safety (MHE's):
Selection of MHE Operators through ARVR simulation safety training module Red & Blue Spotlight, biometric sensor for dedicated MHES operator Fork Camera Remote monitoring System- IOT Device (Internet Of Things) Designated MHE movement area Marking



Electrical Safety:

It is important and if not followed may lead to major fire risk in the warehouse For electrical safety need to include Harmonic Panel Lightning Protection System (LPS) Surge Protection Device (SPD) Emergency Switch for MHE, AC & LDB Display Skull bone & Electrical hazard signages (as per IER), Application of Lock Out Tag OUT standard and Sops (LOTO), Provision of Lighting Arrestors. Regular Maintenance of Transformer yard. display Single line diagram Electrical Rubber Mat (IS 15652), Electrical PPEs- Electrical safety Shoes (IS15298-2 (2011)) Safety Helmet (Class E) Rubber insulating Gloves tested to appropriate voltage (IS4770 : 1991). Dedicated authorized trained electrician for carrying out the regular electrical maintenance with work permit system and LOTO system. Important to conduct a defined interval electrical audit of the warehouse electrical system to prevent any electrical fire risk.





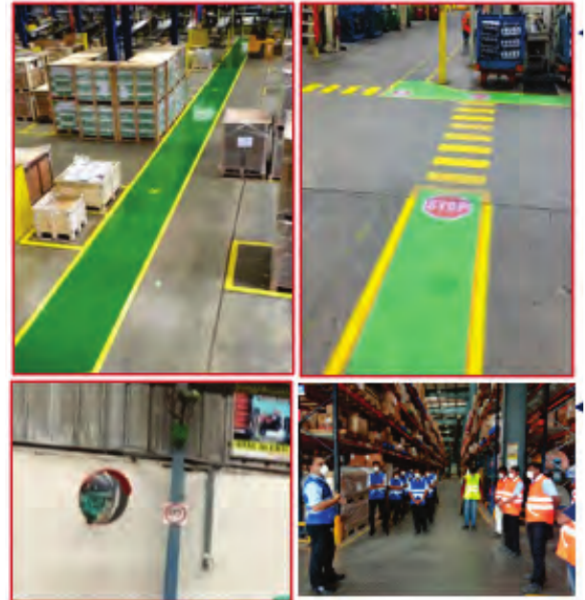
- Safety Incident Management:

online reporting system for regular reporting safety lead and lag indicators for all safety incidents like Unsafe acts, unsafe conditions, near miss, first aid case reportable incidents



- Visitor Safety Management:

The warehouse should include an employee card, visitor card and visitor safety induction for safe entry and exit procedure as part of visitor safety management. This is a clear means of identifying individuals who are not regular employees or authorized personnel within a facility.



- Safety Promotion Activities:

It includes activities like Celebration of National safety days, Monthly safety themes, health awareness session, safety messages and safety tips via safety communication.





iii. Planet:

Green warehousing **IGBC platinum** certified includes solar panels, EV charging and waste management system like zero liquid discharge and carbon neutral by 2040 with various electrical energy saving initiatives. **Green last mile Mobility**, for last-mile cargo delivery service runs solely on EVs. as part of the effort to employ alternative energy to reduce our carbon footprint.



"Safe way is the best way,
safety first safety always."

* * *