



شركة العين للتوزيع  
Al Ain Distribution Company

## Health, Safety and Environment Management System Procedure

### Standard Operating Procedure Stacking and Storage SOP.HSEMS.26

Effective Date 10/ 01 / 2019

Procedure #: SOP.HSEMS.26

Issue : 1

Revision : 0

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Approved by:

Managing Director

Abdullah Al Al Shehri



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## Standard Operating Procedure Stacking and Storage

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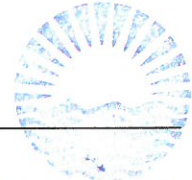
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Managing Director



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Issued by:

HSE Management System Representative

Effective Date: 10 / 01 / 2019

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**Health, Safety and Environment  
Management System  
Procedure**

**Standard Operating Procedure  
Stacking and Storage  
SOP.HSEMS.26**

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#### 1.0 Intent

- 1.1 This Standard Operating Procedure (SOP) defines the general rules and good practices required for stacking and storage activities.
- 1.2 This SOP will help supervisors and workers to control and reduce the risk of injury from manual handling, materials falling from heights, slips/trips/falls and moving machinery.
- 1.3 This SOP will also provide guidance on factors to be considered to assist to segregate the hazardous flammable material and manage safe storage.
- 1.4 This SOP should be read and followed with conjunction with the Manual Handling and Lifting activities SOPs.
- 1.5 This SOP is applicable to all AADC staff and contractor workers.

#### 2.0 Principles

- 2.1 Materials are stored on racks / shelves and pallets considering their shapes and weight.
- 2.2 The main risks to persons during stacking and storage activities are:
  - Musculoskeletal disorders (MSDs)
  - Falling of object
  - Slip/trip
  - Colliding with moving machinery mainly with forklift trucks (FLT).
- 2.3 Risks for operating FLTs, Motorised Stacker & Safety Cage:
  - Incorrect handling of loads
  - Loads are too heavy to be lifted
  - Storage / working area is not levelled
  - Other workers in the area.
- 2.4 All workers involved in stacking and storage shall be trained, be physically capable and be aware of the potential risks with this activity.

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### 3.0 Definitions

For the purposes of this document the following definition applies:

Term	Definition
MSDs	Musculoskeletal Disorders
JSA / RA	Job Safety Analysis / Risk Assessment
FLT	Fork Lift Truck
Pallets	A pallet is a portable platform, for the assembly of a quantity of goods to form a unit load for handling and storage by mechanical means.

### 4.0 Responsibilities

The respective Section Manager is responsible to distribute this procedure to all involved parties and monitor the implementation. Added responsibilities:

Role	Manual Handling
Supervisor	<ul style="list-style-type: none"><li>• Conducts Risk assessment (RA) for stacking and storage of all materials such as odd shapes, heavy, hazardous and flammable etc.</li><li>• Identifies and reviews safe stacking and storage practices to minimize near misses and incidents.</li><li>• Provides appropriate instruction and guidance and monitors the implementation of this SOP.</li></ul>
Workers	<ul style="list-style-type: none"><li>• Assists in conducting the RA and planning the stacking and storage activities.</li><li>• Conducts all stacking and storage activities according to this SOP and the supervisor's instructions and guidance.</li><li>• Segregates and stores the material in the designated places as store / warehouse layout plan.</li><li>• Reports problems relating to stacking and storage to the supervisor.</li><li>• Does not attempt to lift or move any objects which may</li></ul>



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be beyond his capabilities / out of access

## 5.0 Procedure

### 5.1 Required minimum PPE

- High Visibility Vest
- Safety boots
- Safety Helmet
- Light weight Heavy duty work Gloves
- Chemical Gloves (when required)

### 5.2 Storage Areas

- 5.2.1 Storage areas shall be clearly identified and demarcated and indicated on the store's layout plan.
- 5.2.2 Storage areas shall be clearly demarcated including walking and manoeuvring areas for pedestrians and lifting machines.
- 5.2.3 When materials are to be lifted with a crane, FLT or motorised stacker, ensure whenever possible that these are palletised.
- 5.2.4 All possible sources of ignition (e.g. smoking, maintenance /hot work, electrical power supplies, battery charging facilities etc.) shall be strictly controlled to reduce the risks of fire.
- 5.2.5 All storage areas shall be well ventilated and illuminated.

#### Pallets

- 5.2.6 Wherever possible, materials should be strapped to pallets to facilitate the safe handling and transportation.
- 5.2.7 Pallets should be:
  - Suitably designed and robust to handle the weight of equipment or material;
  - Capable of transferring the weight directly to the floor (or racking system);
  - Capable of safely bearing the load placed on them, particularly where there is uneven loading;
  - Appropriate size so that loads do not overhang the sides;
  - Maintained in a suitable condition for safe use, e.g. timbers of wooden pallets must not be split or damaged.
- 5.2.8 When using pallets:

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- Use appropriate lifting and handling equipment to manoeuvre them i.e. pallet trucks and FLTs
- Floors must be levelled and capable of taking the weight.
- Only tidy, evenly banded pallets should be stacked (to ensure stability) and safe height limits should be clearly defined – good guidance is a maximum height equal to 3 X times the shortest base
- Stacks should be neat, vertical, level, and stable.
- Pallets must be properly maintained. Reusable pallets should be regularly inspected and maintained.

5.2.9 The checklist below shall be used a guide to ensure good stacking and storage practices:

<b>Stacking and storage checks</b>
Do stacks restrict access?
Do stacks interfere with visibility?
Are stacks stable and secured?
Are they too high - do they pose a danger of toppling over? – exceed 3 X shortest base
Is there a danger of contact with any electrical cables / power lines?
Is there a chance that items can drop from heights?
Is there safe working / walking space for workers?
Are the working areas for FLTs and other equipment suitable?
Is there any fire risk?
Are materials suitably segregated i.e. flammables, hazardous materials?
Are all materials clearly labelled?
<b>Moving Machinery</b>
Do vehicles / moving machinery operate only in designated areas?
Is the speed limit being maintained and observed?
Is the load balanced and loaded properly?
Has the daily checks been conducted?

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Is the operator trained, competent and is in possession of his license?

#### 5.3 Use of FLTs & Motorised Stacker

- 5.3.1 Operating forklifts and motorised stackers should only be operated by trained and suitable competent operators. Operators shall be in possession of valid licenses for the vehicle they operate.
- 5.3.2 Operators shall conduct routine checks on all equipment prior to operating them. Standard checklists shall be used for this purpose.
- 5.3.3 Operators are to ensure that tyres, , are correctly inflated as under inflated tyres can reduce stability
- 5.3.4 The operator must only operate the equipment in the designated areas.
- 5.3.5 Operate at a safe speed
  - o Never exceed the speed limit.
  - o Take corners and any turns slowly to minimise risk of tipping.
  - o Move slowly and cautiously when the load is raised, and travel with the load as low as reasonably practicable.
- 5.3.6 Use the horn when closing in on a corner or doorway/entrance and around people to alert pedestrians or other operators of your whereabouts to avoid any collision.
- 5.3.7 Keep a safe distance to ensure safe stopping from other moving machineries.

#### 5.4 Safety Cage

- 5.4.1 The safety cage must be suitably secured to the fork attachment of the FLT.
- 5.4.2 The cage must be able to be closed on all sides.
- 5.4.3 The worker in the cage must limit his movements to inside the cage and not attempt to over-reach.
- 5.4.4 Work from the cage must be limited to packing small items on shelves and to do stock count.

#### 5.5 Safe Loads

- 5.5.1 Operators are to ensure that the loads being moved are stable and secure, this

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includes ensuring:

- Correctly securing the load on the pallet
- Securing the load across both fork or stacker arms for balance
- Carry loads as close as reasonably practicable, to the ground or other supporting surfaces
- Ensure no overloading.
- Only lift the load vertically (straight up) with no dragging or off-vertical lifts

5.5.2 Do not travel across a slope greater than that recommended by the manufacturer.

5.5.3 Operator must not let other persons ride on the equipment unless such access is provided by on the machine.

5.5.4 General safety consideration include:

- Do not use the tip of the forks as a lever to raise a heavy load.
- Do not push a load with the tip of the forks.
- Know the capacity of your forklift and any attachments being used and never exceed this capacity.

## 5.6 Segregation of Stored Material

5.6.1 The following shall be considered with regards to segregation of stored materials:

- Long thin items to be store in some form of horizontal racking with suitable bonding.
- Small lose material shall be stored in suitable boxes / bins
- Cylindrical items to be stored on their sides or on end and the floor-level tier should be properly secured to prevent movement.
- Pipes / tubular shaped material shall be stored on stacks with stoppers /wedges provided at the bottom layer to keep the stack stable and it should not be stacked more than 1.5 meter high

5.6.2 Stocks of hazardous combustible materials should be kept in separate storage areas. Such substances should be stored in dedicated compartments which are effectively fire-separated from the rest of the building.

## 5.7 Storage of Acid and Hazardous Chemical Substances / Materials





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5.7.1 When storing hazardous materials, following shall be considered:

- Store acids and bases in separately;
- Store acids and solvents separately
- Label shelves / containers for quick chemical identification.
- Store same shaped containers together to conserve shelf space.
- Never store chemical containers anywhere except in designated cabinets.
- Remove any leaking containers and return to the supplier
- Ensure that Material Data Sheets are available for all stored hazardous materials
- Ensure that chemicals and other hazardous materials do not expire – if so promptly return them to the supplier(s)
- Always use the container with the oldest date – ensuring that it has not expired
- Make sure the container is sealed when it is returned
- Empty containers must be stored separately from full containers. And returned to suppliers or disposed of safety in accordance to the disposal of hazardous waste procedure.

## 5.8 Emergency Planning and Rescue

5.8.1 Store / warehouse manager is to ensure that an emergency response plan is developed and available using the principles as defined in the Company Core Procedure – Emergency Response Plan CP.HSEMS.12.

5.8.2 Appropriate number of persons shall be trained as First Aiders as required

## 6.0 References

6.1 OSHAD SF Element 2 – Risk Management – Version 3.0, March 2016

6.2 AADC Emergency Management and Response Procedure

6.3 UK, Health and Safety Executive guidelines, storage and stacking of materials

## 7.0 Appendices

No Appendix.

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