



# **Contractors Safety guidelines**

**GUJARAT PIPAVAV PORT LTD**

**Version 4.0**  
**Sep-2025**



**ACKNOWLEDGEMENT BY CONTRACTOR**

|                            |  |
|----------------------------|--|
| Contractors name           |  |
| Job/task to be carried out |  |
| Address                    |  |

I hereby acknowledge the receipt of the contractors Safety guideline and confirm that contents of the guideline have been understood by me.

I agree to abide by the guidelines and will under take assigned job in a safe manner.

Recipient's sign

Stamp:

Date:





## Document Control

| Item               |        | Details                                                         |
|--------------------|--------|-----------------------------------------------------------------|
| Document Title     |        | Contractor Safety Guidelines                                    |
| Document No.       |        | GPPL/HSE/GL/CSG                                                 |
| Site               |        | APM Terminals Pipavav, Gujarat Pipavav Port Limited (GPPL)      |
| Department         |        | Health, Safety & Environment (HSE)                              |
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| Version            |        | 4.0                                                             |
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| Prepared By        |        | Manager - HSE                                                   |
| Approved By        |        | Head of HSE                                                     |

## Revision History

| Version | Date     | Revised By | Remarks                                                                                            |
|---------|----------|------------|----------------------------------------------------------------------------------------------------|
| 1.0     | Nov-2015 | VBA082     | Initial issue of the Contractor Safety Guidelines for Port Pipavav.                                |
| 2.0     | Jan-2022 | VBA082     | Periodic review and update.                                                                        |
| 3.0     | Sep-2024 | VBA082     | Periodic review and update.                                                                        |
| 4.0     | Sep-2025 | SSB095     | Realigned to Global standards.<br>Revision history added.<br>Contractor HSE Performance Assessment |



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## 1. Introduction

APM Terminals Pipavav, Gujarat Pipavav Port Limited (GPPL), is committed to protecting our people, our business partners, the communities we work alongside and the customers we serve, by ensuring that our operations are carried out safely and securely with minimal impact to the environment every single day. Contractors and their workers are an integral part of port operations, and this commitment extends without exception to every person who enters the port premises.

In line with the APM Terminals HSSE Policy, we achieve this commitment by:

- Providing a safe, healthy, secure and sustainable work environment.
- Complying with relevant HSSE legal and contractual requirements.
- Ensuring business continuity to our customers through the consistent application of effective HSSE related processes.
- Embedding HSSE risk management in our operations and decision making to secure sustainable growth and earnings.

Four principles guide the way we work, and contractors are expected to work in the same spirit:

- **Our people are the experts** - Frontline workers are the key to uncovering the risks they face in their daily work. We create a safe space to speak up about challenges, risks and even mistakes, without fear of judgement.
- **We lead with care** - Leaders stay connected with the frontline to learn what makes safe work difficult, and then provide what is needed to make safe work easier.
- **We learn and adapt** - We do not wait for an incident to happen before we learn and improve. We set up controls and safeguards before things go wrong.
- **We are resilient** - We plan for disruption, maintain backup capability and learn from every incident.

Safety is the presence of defences and controls, not merely the absence of accidents. A review of the most serious incidents across APM Terminals has identified five recurring fatality-potential risks - the Fatal 5 - being Transportation, Suspended Loads and Lifting, Work at Height, Stored Energy and Control of Contractors. Contractor activities at Port Pipavav routinely involve one or more of these risks, which is why the controls set out in this document are mandatory and non-negotiable.

Wellbeing is inseparable from safety. Protecting people means managing occupational health exposures such as noise, dust, chemicals and heat stress, as well as fatigue, fitness for work and the effects of drugs, alcohol and medication. A person who is unwell, fatigued or unfit for the task is at risk, and so is everyone working around them. Contractors shall plan work, shifts and rest so that no task depends on a fatigued or unfit person continuing in order to complete the job.

These Contractor Safety Guidelines set out the minimum health, safety and environmental requirements for all contractors and sub-contractors engaged at Port Pipavav. They complement, and do not replace, the applicable APM Terminals Global Standards, the contractor's own HSE management system and Indian legal requirements including the Factories Act, OISD, GPCB and PESO. Where requirements differ, the more stringent shall apply.

Every person on site - employee, contractor, sub-contractor or visitor - has both the authority and the obligation to stop any work they believe to be unsafe, without fear of reprisal. Our ambition is zero harm, and it can only be achieved when everyone working at Port Pipavav takes personal responsibility for their own safety and for the safety of those around them.

## 2. Fatal 5

A review of the most serious incidents and fatalities occurring in APMT in recent years has highlighted a number of recurring fatality-potential risks that we are concentrating our efforts on and calling these "The Fatal 5".

The top 5 risks represented by the "Fatal 5" are Transportation, Suspended loads & Lifting, Working At Height, Stored Energy and Control of Contractors

To reach our target of providing a safe work place, minimum controls for the management of these top 5 safety risks have been defined within the relevant standards. (See Appendix A)

The applicable APM Terminals Global Standards are:

APMT-HSSE-REQ-015 - Fatal 5 - Transportation  
APMT-HSSE-REQ-029 - Fatal 5 - Suspended Loads and Lifting  
APMT-HSSE-REQ-014 - Fatal 5 - Work at Height  
APMT-HSSE-REQ-013 - Fatal 5 - Stored Energy  
APMT-HSSE-REQ-011 - Fatal 5 - Control of Contractors

APMT-HSSE-REQ-012 - Permit to Work (supporting standard)

Contractor engagement at APM Terminals Pipavav follows the six phases of APMT-HSSE-REQ-011: Planning, Contractor Selection, Start-up (mobilise), Execute, Close-out (de-mobilise) and Training. The contractor mode (C1, C2 or C3) shall be defined in the contract so that it is clear whose HSE management system controls the risk: under C1 APM Terminals leads and directs the work; under C2 the contractor leads and directs the work within an APM Terminals controlled facility, under its own HSE management system; under C3 the work is performed outside APM Terminals facilities and the contractor's management system applies.

All contractors and sub-contractors shall hold the relevant licences, permits, certifications and insurance, shall meet Indian legal requirements, and shall complete HSSE Induction training before commencing work, refreshed annually. An APM Terminals representative is appointed for every contract as the single point of contact, and the HSE performance of every contractor is reviewed and evaluated at least annually.

In emphasizing the top 5 risks, it should also be acknowledged that other fatality potential risks in our operations exist beyond this initial list.



### **Transportation**

We have lots of heavy equipment and vehicles moving around our operations continuously.



### **Suspended Loads & Lifting**

Loading, unloading and moving containers, materials and goods are daily activities.



### **Working at Heights**

By default a lot of our work takes place at height.



### **Stored Energy**

Hazards with potential to release stored energy are in a number of tasks we do.



### **Control of Contractors**

We employ contractors to carry out most of our highest risk tasks.

---



### 3. Personal Protective Equipment

PPE is a second line of defence for personal protection. The first line of defence is to eliminate or control the accident-causing situations at the work place by effective engineering measures.

PPE does not and cannot eliminate hazards at work. As a barrier between the hazard and the worker, PPE can help eliminate an injury or reduce its severity.

PPE is resorted to only if absolute removal of the hazard in the work environment is impossible or impracticable.

PPE's principal requirements are: -

- To safeguard the wearer from identified hazard to which he is exposed.
- To afford reasonable comfort.
- To permit essential movements of limbs required for efficient job performance.
- To be possible for easy cleaning and maintenance.

#### 3.1 Safety Helmet



Head injuries at work may result from but not limited to falling object, fall of person, persons hitting their head on fixed objects, flying hard particles etc.

Safety helmet to be worn in all areas posing risk of injury to the head.

**Standard:** BIS Approved, where BIS is available EN approved

**Recommended Brand:** Joseph Leslie & Co LLP, Karam, MSA, Udyogi

HOW A SAFETY HELMET PROTECTS YOUR HEAD

The hard shell of the helmet is designed to protect the head against the impact. It deflects objects and distributes the force of the impact over the whole head, diffusing the gravity of the blow.

The peak, a permanent extension of the shell over the eyes, protects the face, and especially the eyes from the injury. The brim is a narrow rim surrounding the shell that also helps deflect objects away from the head.

The chinstrap and the ratchet hold the helmet securely in place. It is to adjust so as to fit correctly and comfortably. Straps should be snugly but not too tightly in place.

#### SAFETY HELMET USE & CARE: -

Wear the helmet straight, not tilted, on your head. The helmet is the protector of your head and not a storage bin. Do not stash away cigarette packs, cards, letters etc, in the clearance inside your hard hat and never wear an ordinary cap under it.

The following care to be taken for the safety helmets: -

- Helmets to be inspected prior to use for defects.
- Once damaged helmet to be discarded and a new helmet to be used.
- Helmet outer and inner to be kept clean always to avoid infection.
- Check the suspension for any crack/defects.
- If the ratchets are not working properly get the headband replaced.
- No changes to be done to the original parts of the helmet.

Safety helmets are compulsory in area with risk of injury to head due to falling objects, flying materials, striking hazard etc

### **3.2 Ear Muff / Earplugs**



Too much noise can damage hearing temporarily or even permanently, create stress that can and does sometimes affect one's physical and mental health and cause

accidents in the work place. Earmuffs can protect your ears (hearing) from potentially damaging levels of sound by fit over the whole ear to seal out the noise.

A set of earmuffs consists of 3 components: -

1. Cups made of moulded plastic and filled with foam or other material. They vary in size and can be adjusted up or down.
2. Cushions covered with plastic and filled with foam, liquid or air to ensure comfort and protection, seal out noise;
3. The spring-loaded headband holds the cups in place.

Wear your protection on the job. Even a short period exposure to high level noise may damage your hearing. Remember that noise pollution is a very real hazard. It needs everybody's co-operation to keep it under control and conserve hearing.

**Standard: IS 9167, EN**

Recommended Brand: 3M, MSA, Karam

#### USE & CARE

The earmuff to be cleaned with soft cloth, no chemicals should be used for cleaning. Earplugs are to be cleaned before and after use to avoid ear infection.

#### PERMISSIBLE EXPOSURE LEVELS OF CONTINUOUS NOISE

| TOTAL TIME OF EXPOSURE<br>PER DAY IN HOURS | MAXIMUM ALLOWABLE<br>SOUND LEVEL IN Db(A) |
|--------------------------------------------|-------------------------------------------|
| 8 Hrs                                      | 90                                        |
| 6 Hrs                                      | 92                                        |
| 4 Hrs                                      | 95                                        |
| 3 Hrs                                      | 97                                        |
| 2 Hrs                                      | 100                                       |
| 1.5 Hrs                                    | 102                                       |
| 1 Hrs                                      | 105                                       |
| 45 Minute                                  | 107                                       |
| 30 Minute                                  | 110                                       |
| 15 Minute                                  | 115                                       |

Ear plugs are compulsory in area generating high noise posing risk to ear drum Viz; D G Set, Compressor area/room, machinery room, grinding, chipping, vibrating equipments etc.

### 3.3 Safety Goggles



Eyes are precious, vital parts of our body; we cannot and must not neglect them. Carelessness, in many cases, causes irreparable damages. Eye protectors are must to avoid injury to the eye resulting from flying objects, splashing liquids, dust particles etc.

Safety eye wear must be right fit for you, should not be too tight or too loose, fitting snugly close to the eyes without touching the eye lashes and without hampering the body movement. Never use somebody else's safety goggles.

Standard: EN Standard

Recommended Brand: 3M, Udyogi, Venus

#### CLEANING AND DISINFECTING

- Clean with soap and warm water to remove oil or grease.
- Rinse in cold water and dry it with a clean cloth.

#### PRECAUTIONS

- Petrol, thinner, spirit etc should not be used for cleaning.

Safety goggles are compulsory in areas having risk of injury to the eye viz; Grinding, chipping, batching plant, blocking making area, spray painting, pressurized pipe/hose maintenance, welding/cutting etc.

Safety goggles should be selected according to job risk and wearing it is compulsory in carrying out tasks which can cause eye injury.

### 3.4 Respiratory Mask



The respiratory system, consisting of some vital organs of the body, is the very core of a human body. If this breaks down, life itself is extinguished. Therefore one must give the best possible protection against the hazards of the workplace that threatens it.

#### HARMFUL CONTAMINANTS

Dust : Minerals, Fertilisers, etc  
Smoke : Exhaust from vehicle G set etc  
Chemical fumes : Chemical fumes can lead to asphyxiation.

Respiratory mask selected should be suitable for eliminating/reducing risk of the job. Wrong mask selection will not provide protection and continue to harm people.

Standard: FFP1, FFP2, 3-Ply

Recommended Brand: 3M, Venus, Promax

Respiratory mask is compulsory in areas posing risk to respiratory system.

### 3.5 Hand Gloves

Hands are the two busiest, most important, indispensable and invaluable at the same time vulnerable tools the human body has at its disposal.

Recommended Brand: Joseph Leslico

Types of gloves:

|                          |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|
| Electrical safety gloves | Certified for correct rating of electrical potential                                |
| Chemical Safety gloves   | While handling any Hazardous Chemicals                                              |
| Low temperature gloves   | For handling of cargo/liquid having risk of cold burn.                              |
| Leather gloves           | For preventing injury from sharp object.                                            |
| Impact Resistant Gloves  | While carrying out activities which have potential for impact injuries like lashing |
| Cotton gloves            | For preventing contact of hand with dust, oil, grease etc.                          |
| Hygiene gloves           | For handling edible materials.                                                      |
| Anti-Vibration Gloves    | While handling equipment which generated heavy vibration                            |



Correct selection of gloves is important for eliminating/reducing injury to hand.

For handling material with sharp edge leather glove with vein guard should be selected.

Wearing suitable hand gloves is compulsory in all task/job with risk of hand injury.

### 3.6 Safety Shoe / Boot



Our feet are prone to hazards such as striking/falling objects, contact with acids/alkali, exposure to hot surfaces, wet slippery surfaces etc. These impact of the hazards can be minimized/eliminated by use of suitable safety footwear

**Standard:** IS-15298 Part 2-2011

**Recommended Brand:** Liberty Warrior, Karam, ACME

#### HAZARDS TO FEET

- Falling, rolling objects and materials
- Sharp cutting edges, wood chips, glass pieces, nails etc.
- Oily/greasy floors
- Skids and slips.
- Sanitation hazards.

#### USE & CARE

- Safety footwear to be kept clean and dry.
- Safety footwear to be comfortable to the wearer.
- Periodically dry the boots/shoes under sunlight.
- Wearing wet shoe can cause foot mycosis.

Torn, damaged Safety footwear should be replaced with new safety footwear.

Safety footwear are compulsory in operational areas viz; quay side, yard, CFS, workshop, construction site, warehouses, fabrication and repair site etc.

### 3.7 High Visibility Clothing



**Standard:** IS-15809

**Recommended Brand:**

High visibility clothing provides visibility of people and working in the area and helps in preventing incidents.

Jackets should have reflective strips of 50 mm minimum.



Wearing high visibility vest is compulsory in all working areas excluding offices.

Winterwear and rainwear shall also have high visibility reflective strips, otherwise people need to wear high visibility vest on top of it.

Blankets, muflers etc loose clothings are forbidden.

### 3.8 Safety Harness

Safety harness is the second level of protection during working at height. Only Full Body safety harness with double lanyard is allowed to use in the Port area.



Fullbody Safety harness with double lanyard is compulsory for working on heights; it should be anchored to a fixed/rigid object which could take load of the person performing the task in the event of accidental fall.

**Standard:** , IS-3521-1999

**Recommended Brand:** Karam, Udyogi

### 3.9 Life Vest





Life vest: Life vest is compulsory for all personnel carrying out any work within 1 meter of jetty edge or work being carried out above water (pile work, jetty edge repairing etc) to ensure floatation of person in case of accidental fall.

Life vest is compulsory for all personnel working on marine craft when working in deck area.

Life vest must be equipped with mandatory accessories such as whistle, auto-activated lights.

Standard: MMD, IRS and SOLAS Approved

Recommended Brand: Lalizas, Galvanisers

## 4. Traffic Guidelines

Any Vehicle can be used in Port only after getting it inspected by HSSE department of its roadworthiness. Security issue vehicle Port entry pass only after the Safety Department inspect the vehicle and if mark it SAFE.

Drivers/operator of vehicle/equipment should be in possession of valid driving license applicable for driving/operating vehicle/equipment.

Vehicle /equipment should be in road worthy condition and in possession of fitness certificate from RTO.

Vehicle/equipment should always be in possession of all valid documents as per prevailing RTO regulation/s.

Vehicle carrying capacity should not exceed the capacity as specified in the RC book or as stipulated by RTO.

All lights, indicators and horn to be in working condition.

Seat belts are compulsory for all drivers and operators.

Personnel carrying capacity should not be exceeded beyond the capacity as endorsed in the RC book or prevailing RTO regulation/s.

Vehicle/equipment should be in possession of First aid box and fire extinguisher.

Vehicle/equipments to be parked in designated parking areas only.

Drivers/operators of equipments are not allowed to get down at yard or at quay side.

For any breakdown/inspection contact concerned department or HSSE on emergency contact No (9924 333 333).

Usage of high beam light at night is not allowed inside port premises.

Overtaking of vehicle is prohibited.

Usage of cell phone while operating/driving is prohibited.

Vehicle/equipments should not be parked below hanging load.

Operators and drivers shall not exceed the hours-of-work, break and minimum rest limits defined in the GPPL HSE Fatigue Management SOP and the GPPL Traffic Management Plan. Double shifts shall not be worked without documented approval. A pre-shift fit-for-work check shall be completed before every driving or operating duty, and any person who reports fatigue, or is observed to be fatigued, shall be stood down from safety-sensitive work immediately.

Traffic signs/boards messages are to be followed while driving inside port premises.

Speed limit of the vehicle/equipment should not exceed Port Speed limits.

### Speed Limits

|                                    |          |
|------------------------------------|----------|
| Port Area outside the Customs Zone | 40 km/hr |
| Port Area inside the Customs Zone  | 30 km/hr |
| Yards, Quayside and sheds          | 20 km/hr |

Non-compliance to speed-limits and traffic violations shall be address through consequence management including fines, suspensions upto permanent blacklisting.

All vehicle/equipment and their driver/operator should be in possession of valid port security passes.

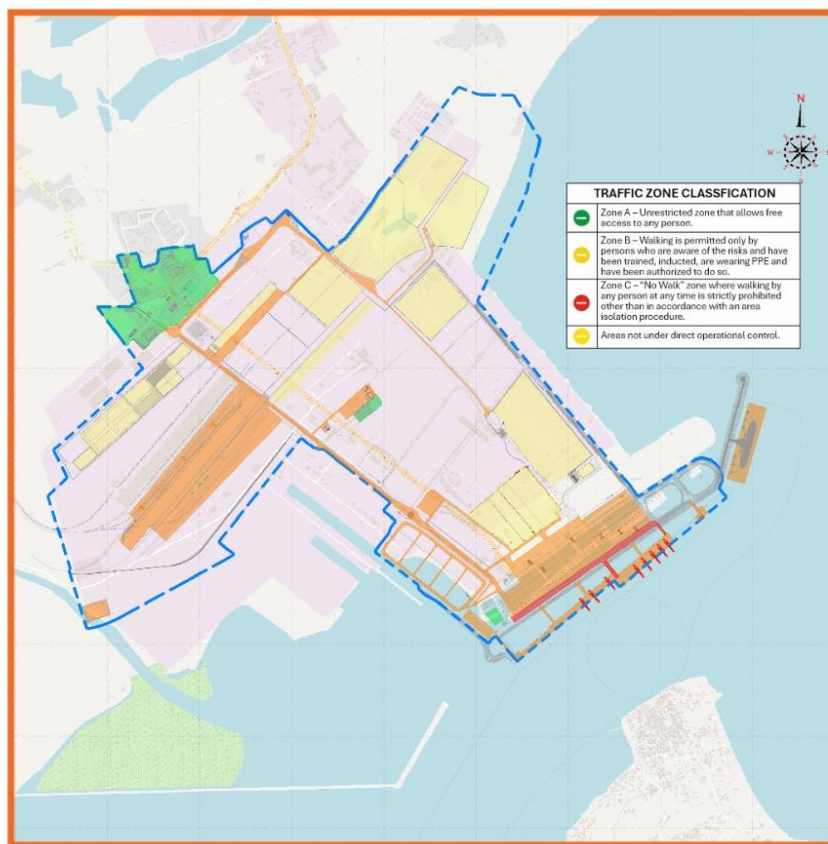
#### Traffic Zones

Port divided in the 3 Traffic Zones which are:

Zone A – Unrestricted zone that allows free access to any person.

Zone B – Walking is permitted only by persons who are aware of the risks and have been trained, inducted, are wearing PPE and have been authorized to do so.

Zone C – “No Walk” zone where walking by any person at any time is strictly prohibited other than in accordance with an area isolation procedure



## 5. Lifting Gears / Equipment

Lifting gears in operation should have valid test certificates on the day of operation.

Lifting gears should have stamp of SWL and year of inspection on it.

All lifting appliances should be examined by a competent person as per Dock Safety once in 12 months and certificate of inspection to be made available to port Safety on demand.

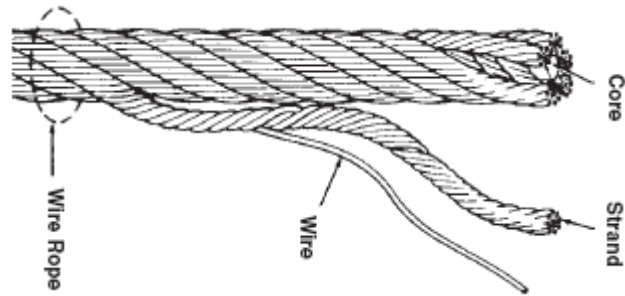
All lifting appliances should be inspected at least once every month and logged into the gear register which should be available for inspection by port Safety.

**Safe operating practices:** Whenever any sling is used, the following practices shall be observed:

- Slings that are Damaged, disfigured or cracked should be discontinued from operation and shall not be kept on the work site.
- Slings shall not be shortened with knots or bolts or other makeshift devices.
- Slings shall not be loaded in excess of their rated capacities.
- Slings used in a basket hitch shall have the loads balanced to prevent slippage.
- Slings shall be securely attached to their loads.
- Slings shall be padded or protected from the sharp edges of their loads.
- Suspended loads shall be kept clear of all obstructions.
- All employees shall be kept clear of loads about to be lifted and of suspended loads.
- Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.
- Shock loading is prohibited.
- Worn or damaged alloy steel chain slings or attachments shall not be used until repaired, examined and certified. When welding or heat testing is performed, slings shall not be used unless repaired, reconditioned and proof tested by the sling manufacturer or an equivalent entity.
- A sling shall not be pulled from under a load when the load is resting on the sling.

**Inspections:** Each day before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a competent person designated by the employer. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service.

### 5.1 Wire Rope

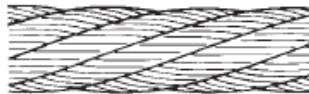


A wire rope is a piece of flexible, multiwired, stranded machinery made of many precision parts.

Usually a wire rope consists of a core member, around which a number of multi wired strands are laid or helically bent. There are two general types of cores for wire ropes- fiber cores and wire cores.

## 5.2 Lays of Wire Rope

'Lay" of a wire rope is simply a description of the way and strands are placed during construction. Right lay and left lay refer to the direction of strands



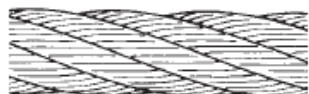
Left Lay REGULAR LAY



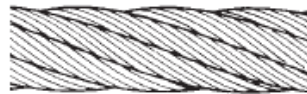
Left Lay LANG LAY



Right Alternate Lay



Right Lay REGULAR LAY



Right Lay LANG LAY

## 6. Firefighting Arrangements

Fire fighting arrangements needs to be in place for all equipments/vehicles being mobilized /used at the port.

### 6.1 Firefighting Media

Place adequate numbers of Portable Fire Extinguishers at the working site. All the fire extinguisher shall be of BIS Approved type only. All the fire extinguisher shall bear the last test and refill dates.

### 6.2 Fire Extinguisher Suitability Chart

| CLASS OF FIRE | WATER | FOAM | CO 2 | DCP          | ABC |
|---------------|-------|------|------|--------------|-----|
| A             | ✓     | ×    | ×    | ✓            | ✓   |
| B             | ×     | ✓    | ×    | ✓            | ✓   |
| C             | ×     | ×    | ×    | ✓            | ✓   |
| D             | ×     | ×    | ×    | ✓(Spl. Pwdr) | -   |
| ELECTRICAL    | ×     | ×    | ✓    | ✓            | ✓   |

## 7. Electrical System

All electrical system installed should be as per standards specified by Bureau of Indian standard or international regulations and found safe for working by Port electrical department.

Basic electrical Safety:

- Electrical wiring and colour code of wires should be as per BIS code.
- Supply and distribution board must have adequate circuit breaker (ELCB/RCCB).
- Correct rating of wires should be selected for wiring.
- All electrical components should be grounded properly.
- Switch boards/panels to be in weather proof enclosures.
- Prior to laying any cable work permit needs to be taken from Port Safety.
- No modification/repair/replacement to be done in any Port electrical system/component without approval from Ports electrical department.
- No part of any electrical circuit should be exposed.
- Do not overload an electrical circuit beyond its rating.
- Tools without required insulation should not be used.
- Electrical work can be hazardous if worker, location or equipment is wet.
- Always use the correct PPE for performing the job.
- Use right tool for performing the job.
- Do not use metal ladder for doing electrical job.
- De energize all circuits prior commencement of work.
- Do not run electrical wires/cables through area of vehicle/equipment/personnel movement.

Power tool Safety

Use of power tool can make a job go faster and easier. The misuse of portable tools can cause electric shock, burns, cuts, puncture wounds, severed finger and limbs etc.

Safety note:

- Do not attempt to adjust, clean or service tools without disconnecting power supply.
- Do not use tool with broken bits and blades.
- Do not use tool with defective wiring.
- Do not work near flammable gas.
- Do not work without proper PPE
- Do not operate if not familiar with operation of tool.
- Do not point tool on any person.
- Do not use worn out/defective tools.

- Do not carry power tool with finger on the 'trigger'.
- Always store power tool in its designated Safe place.
- Do not use power tool with broken cable.
- Do not work with power tool in area with poor lighting.



## 8. Housekeeping

A PLACE FOR EVERY THING AND EVERYTHING IN ITS PLACE.

Good house keeping helps in eliminating most of the workplace hazards.

Some basic elements of good house keeping.

- Incompatible materials should be stored separately with sufficient safety distance/barrier.
- Proper lighting in working area.
- Floor to be dry and free from slip, trip and fall hazard.
- Emergency exit marked and free from obstruction.
- Fire fighting arrangements in place.

Working area should always be kept clean and free of any hazard which may result into an accident.

It will be contractor's responsibility to keep his working area clean.

Garbage management

Waste generated from the work place should be disposed as per port garbage management system given below;

Wastes generated have been classified in three categories

|                     |       |                                                                    |
|---------------------|-------|--------------------------------------------------------------------|
| Organic solid waste | GREEN | Left over food material, vegetable slicing & decayed material etc. |
| Recyclable waste    | BLUE  | Paper, cardboard, plastic bottles, glass bottles etc               |
| Household garbage   | BLACK | Used fuel oil & lube oil, paints, thinner, tube lights, wires etc  |

## **9. Illumination**

Illumination level at work place should be arranged so as to assist workforce in carrying out the assigned job in a safe manner.

Illumination levels adequate for the range of operations carried out, including night operations (minimum lighting of 10 lux on access routes for people and mobile equipment; and a minimum of 50 lux in operational areas where people and mobile equipment work in close proximity)

All means of illumination (portable or fixed) should meet the electrical system standards.

Glare from illumination should not pose risk to other operation, personnel and equipments working in the vicinity.

Any form of fire created for illumination at work place is strictly prohibited.

## **10. Oil Spill**

Any form of oil spill at work place is to be restricted /controlled.

Oil spill if any at work place has to be contained and collected.

In the event of any large spill beyond control Port Safety has to be contacted for assistance.

For disposal of any form of waste oil Port Safety should be contacted for its disposal as per Pollution control board directives.

Disposal of oil or any hazardous material into drain or in open area is strictly prohibited and will lead to strict disciplinary action.

Contractors will have to maintain minimum quantity of saw dust for containment of oil spill at work place.

## **11. Work Permit**

Work permit system is an effective way of controlling work place hazard and preventing any work place accident. All the non-routine activity shall be performed only under Work Permit system.

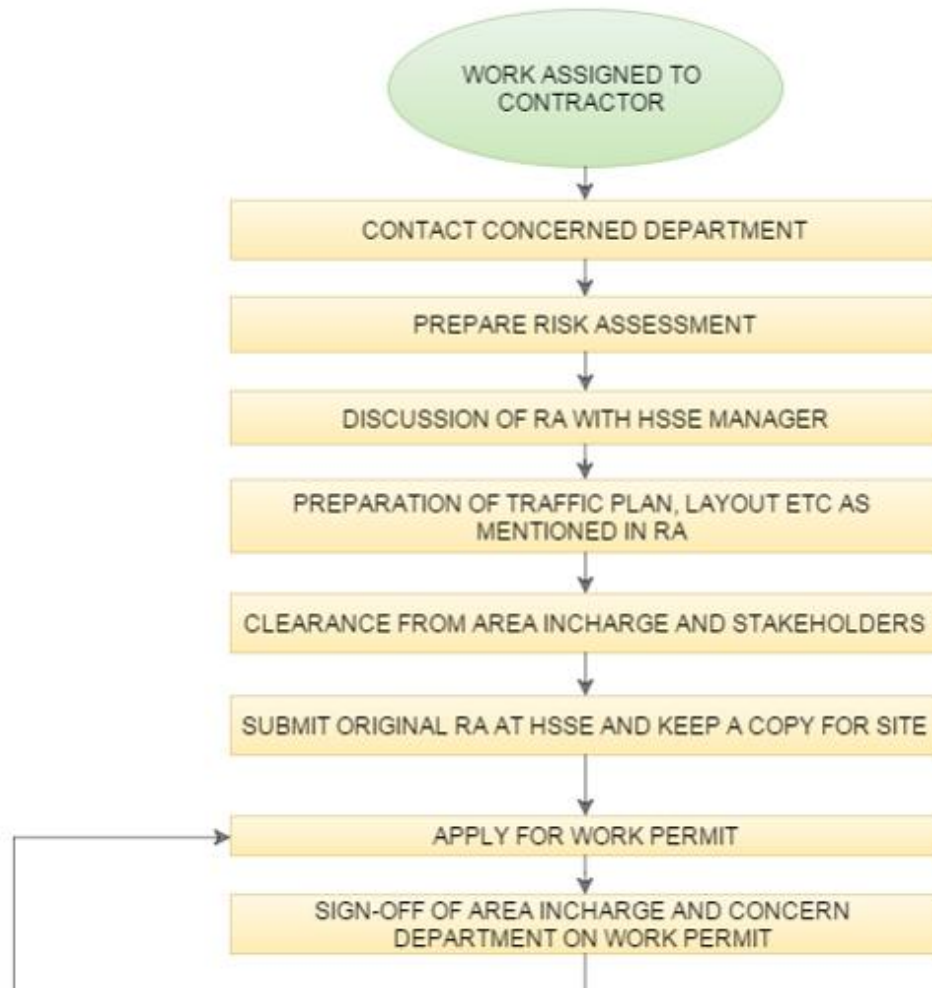
Work Permit issued only after submission of agreed Work methodology, Risk Assessment, HSSE Plan, Rescue plan and Traffic plan depending upon the nature of work.

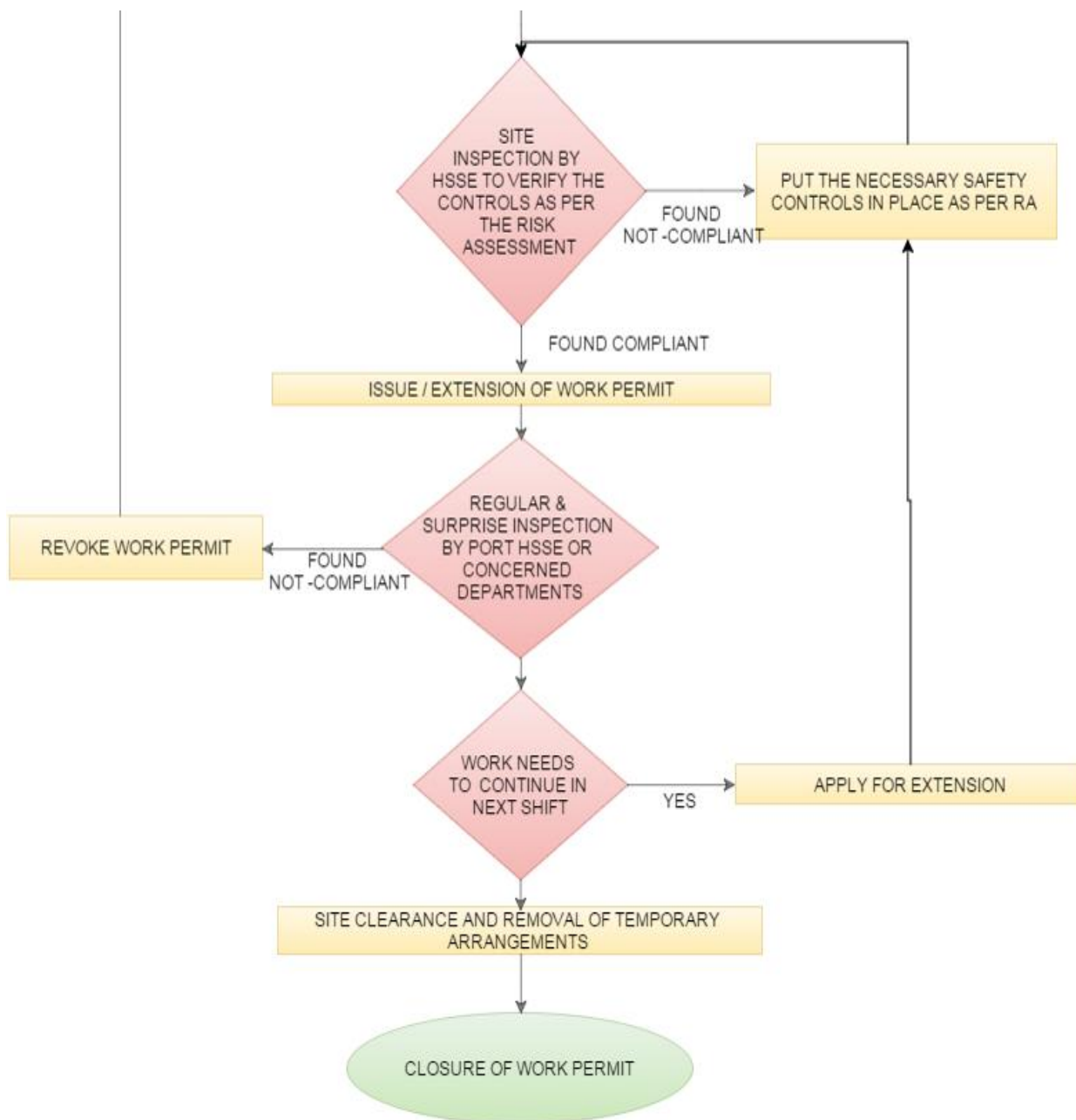
The permit types issued at APM Terminals Pipavav are defined in the GPPL Work Permit SOP: General / Cold Work, Hot Work, Height Work, Excavation, Confined Space Entry, Electrical Work, Bunkering, Vehicle Repair and Diving.

Only personnel listed in the PTW Authorisation Matrix may apply for, approve or authorise a permit. Contractors shall formally nominate, in writing to the activity owner, the supervisor who will act as permit applicant / receiver and who meets the competency criteria of the GPPL Work Permit SOP.

Every permit shall record the activities; the hazards, risks and controls for each activity or service; the duration of the permit and the location of the activities; the name and signature of the contractor and of the APM Terminals representative; and the date of approval. A permit may be extended only where the risk assessment has been completed, the activities are unchanged, the extension is approved by the relevant parties and it is communicated to all involved functions. Implementation of the controls in the permit shall be verified by inspections carried out before, during and after the work.

## PERMIT TO WORK PROCESS FLOW





**Excavation/Ground disturbance work permit:** Prior to start of any excavation work permit is to be obtained from Port Safety.

**Hot work permit:** Any work which may generate sufficient heat to cause ignition is termed as hot work eg, welding, cutting, chipping etc. Hot work permit is to be obtained for the job which will be issued and monitored on regular basis.

**Working at height:** Any work requiring a person to work at a height above 1.8 metres, where a fall could cause injury, requires a Height Work Permit, in line with the GPPL Work Permit SOP and APMT-HSSE-REQ-014 Fatal 5 - Work at Height.

**Fuel loading/Bunkering permit:** Fuel loading from fuel tanker/bowser will require fuel loading work permit.

**Diving work permit:** Any diving operation requiring person/s to go beneath a vessel at berth for carrying out inspection/repair will require work permit.

If at any time after release of work permit it is observed that Safety guidelines are not followed for the work being carried out Port Safety will stop the work and restart work if satisfied that adequate measures are in place for personnel and material Safety.

## 12. Site Inspection

Work site of the contractors will be inspected and if it is found that Safety measures are not in place work at the site will be stopped.

**Stop Work Authority** applies to every person on site. Any employee, contractor, sub-contractor or visitor who believes that a task is unsafe has both the authority and the obligation to stop the work, without fear of reprisal, in accordance with the GPPL HSE Stop Work Authority (SWA) SOP Version 2.0. Work shall resume only once the hazard has been corrected and the restart has been authorised by the area owner and HSE.

Consequences for not adhering to a permit to work or to minimum HSSE requirements are included in the contract and, as set out in APMT-HSSE-REQ-011 V3.0, may include a written request for improvement, penalties, stop of work until findings are resolved, removal from the location / terminal / site, or termination of contract.

All Safety inspection will be documented and non compliance will be brought to the notice of the contractor/s and applicable consequences management shall be applied.

Contractors will be responsible for maintaining Safety standards at their work site and implementation of corrective actions recommended in inspection report.



### **13. Safety Meeting**

Contractors have to participate in the monthly contractors Safety meeting organized by Port HSE team..

Records of internal Safety meetings of contractors should always be available to port Safety on demand.

Person of the level of supervisor and above should be nominated for the Safety meeting.

Non participation in Contractors Safety meeting is not acceptable and will lead to disciplinary action.

## **14. Signs and Boards**

Adequate signages and boards should be displayed at work site for caution to all.

Area posing a risk of fall hazard into trench/manhole will need barricading and board displayed in bilingual (English and Gujarati) for caution to all persons and vehicle / equipment movement.

Caution boards and signages should be of reflective/high visibility type for visibility at night. Port Emergency No (9924 333 333) should be displayed prominently at work location.

## 15. Safety Performance

Contractors shall submit the man-hours worked by all persons at site, including those of their sub-contractors, to Port HR Team.

Any incident, near miss, fire event, asset damage, occupational illness or unsafe observation at site shall be reported to Port HSE immediately.

Short-term and long-term contractor work hours are captured by the appointed APM Terminals representative and reported monthly into OneStream.

Notification and reporting shall follow the GPPL HSE Incident Reporting, Investigation & Learning SOP: the supervisor / line manager and Port HSE shall be notified as soon as possible and no later than 12 hours from occurrence, and the event shall be recorded in GIZMO with supporting evidence within 24 hours. Fire events shall additionally be reported on the Fire Event - Initial Incident Notification Form within 12 hours. Mobile equipment involved in any incident shall be taken Out of Service immediately, pending investigation. Non-classified incidents are reviewed using the Chain of Causation method within 7 days; Level 3, 4, 5 and High Potential (HiPo) incidents require an investigation report within one month, and a Learning Pack within one month for HiPo Level 4 and 5.

Prior to start of any project work related to construction and fabrication a job risk assessment study needs to be carried out and submitted to port safety for approval. Risk assessment should cover hazards associated with job/task and control measures in place to mitigate risk.

Risk assessments shall be prepared using the APMT 5x5 Risk Assessment Matrix and the Hierarchy of Controls (Elimination, Substitution, Engineering, Administrative, Behavioural, PPE) set out in the GPPL HSE Risk Assessment & Management SOP Version 5.0, and shall as a minimum comply with applicable Indian legal requirements (Factories Act, OISD, GPCB, PESO). Frontline workers performing the task shall take part in the assessment. Where the residual risk remains High, a Risk Action Plan is required; where the risk is Unacceptable, the activity shall not proceed. Risk assessments shall be communicated to the workforce in Hindi or Gujarati where required, reviewed at least annually and after any incident, change or new learning, and the controls shall be verified periodically for continued effectiveness.

Contractors have to undergo Safety induction training prior to start of any work at the Port. Such induction training will be organized for the contractors on regular basis and contractors have to participate in the training sessions.

## **16. General Safety**

### **16.1 Ladder Safety**

A split, cracked, badly worn or loose rung is very dangerous and shall not be used.

Wooden/bamboo ladders are not allowed to use.

Wrong size ladders cause accidents. Two ladders shall not be lashed together to reach the distance.

The safe length of a ladder is only 15 feet. Ladders should be placed at an angle of 75° (1 horizontal to 4 vertical) and should be secured at the top to prevent slippage.

Damaged ladders should never be used for climbing.

### **16.2 Hand Tool Safety**

Most accidents are caused when:

- The wrong tool is used for the job.
- The tool has not been properly maintained.
- The correct tool is used in the wrong way
- Tools are not stored in a safe place.
- The person is not familiar with or trained in the correct use of the tool

Wrong Tools

There are many examples, for instance using a carpenter's hammer to strike another hammer; a file as a lever; a wrench as a hammer, pliers instead of a proper wrench, etc.

Defective tools

Badly maintained tools, wrenches with cracked or worn jaws, screw drivers with sharp points or broken handles, hammers with loose heads are the few examples of badly maintained tools.

Good fit of the handle is essential for all hand tools. Do not try to patch them.

Misused tools

Injury from misuse of common hand tools is very frequent.

All cutting tools should be used away from the body. If this is not possible, adequate protective clothing should be worn.

Bad Storage of tools

Tools falling from overhead have caused many accidents. Knives, chisels, and other sharp objects should not be carried in pocket or loosely laid in tool boxes or on benches.

### **16.3 Pneumatic Tool**

Review the manufacturer's instruction before using a tool.

Wear safety glasses or goggles, or a face shield (with safety glasses or goggles), and where necessary hearing protection.

Post warning signs where pneumatic tools are used. Set up screens or shields in areas where nearby workers may be exposed to flying fragments, chips, dust, and excessive noise.

Dangers are:

- i. leaving the airline where it may cause a tripping hazard.
- ii. leaving the tool with the air supply switched on,
- iii. disconnecting the hose from the tool and using it to clean machines or clothing
- iv. non-safety protected air couplings (no safety Pin)

### **16.4 Scaffolds**

When scaffolding is used, the following shall apply:

- a. Scaffolds are erected and tagged by a competent person
- b. Scaffold are dimensioned and built to support safely the workloads it will receive
- c. Scaffolds shall be checked at predefined interval by competent person and records shall be kept at site.
- d. Scaffolds are secured and used on even surface
- e. Only use scaffolding materials which is designed for scaffolding (wood or bamboo not allowed) and ensure that these materials are inspected and maintained as per the manufacturer's recommendation.
- f. Scaffolds that are higher than four times the smallest width of its base are to be anchored to the building or to a strong enough structure, or should be cable-stayed
- g. Scaffolds have a guard-rail system and toe-board
- h. Mobile scaffolds can only be used on flat surfaces and with their casters locked
- i. Mobile scaffolds are to be wedged and anchored while in use to avoid their displacement and collapse
- j. Mobile scaffolds are not allowed to be moved while there are persons or materials on the work platform
- k. The scaffolds have their access ladder coupled to its structure
- l. Scaffolds have all access points leading to the platform from inside.

- m. Full body Safety harness with double lanyard is worn when assembling, disassembling and working on the scaffolds.
- n. Scaffolds should be in perfect use condition and without corrosion and a cracked or distorted structure
- o. Scaffolds are assembled far from electrical installations and away from where they can be reached by machines or equipment
- p. The use of ladders or other means on the scaffold work platform to reach higher points is strictly forbidden
- q. Materials should not be stored on scaffolding to a height above that of the toe boards. Care must be taken to ensure that the scaffolding is not over loaded by the storage of materials.
- r. Scaffolding shall be securely supported and where necessary shall be braced to ensure stability. Unless constructed as an independent scaffold it shall be rigidly connected to the structure.
- s. All equipment used in construction of scaffolding should be checked before use to ensure that it is free from defects / corrosion. All fittings should be lubricated.
- t. Use scaffold tags (red, green, and yellow) to communicate the safe use of the scaffold.
- u. Scaffolding equipment shall never be repaired by welding.

## **16.5 Crane Safety**

The following are safe operating requirements which apply to the use of cranes:

- Ensure the load does not exceed the Safe Working Load (SWL) of the equipment being used
- When operating the crane, avoid sudden movements that could cause jerking or stress-loading of the crane
- Do not allow anyone to ride on a load that is being lifted
- Centre the boom point directly over the load before making the lift. Do not pull the crane hook to either side in order to attach it to the load
- Keep loads as low to the deck (or ground) as feasible at all times
- Operate on a solid, level surface
- Do not leave loads hanging – secure at the earliest (safe) opportunity and remove the hook and line
- Only one signalman should be providing the signals, either using standard hand signals or via two-way communication. However, a stop signal is to be obeyed no matter who gives it
- If the load does not ride properly when lifted, lower it and have it readjusted

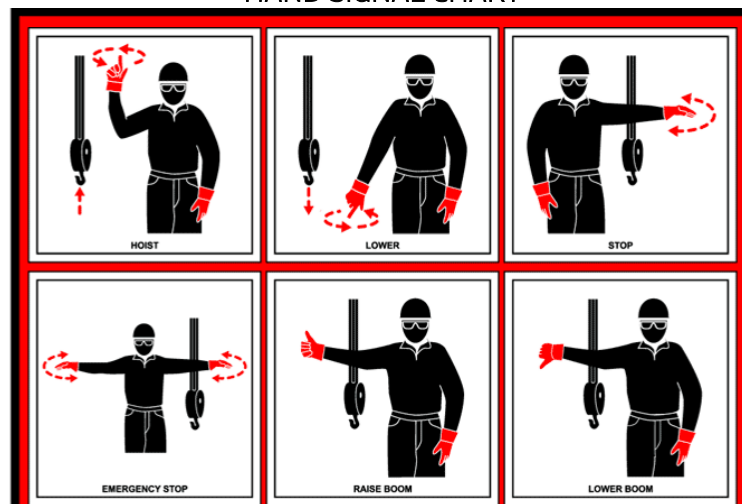
- Use tag lines whenever possible to maintain control over the load without positioning yourself near (or under!) the load
- Never move loads over people. Where necessary, have a person on the ground alert other personnel to move out of the way before the load is moved
- Ensure that all personnel stand clear when the lift is being made and when the slings are being drawn from under the load.

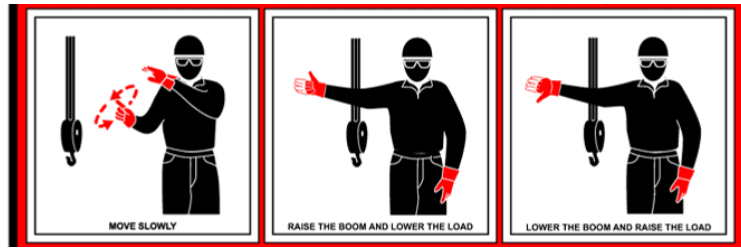
## 16.6 Overhead Load Safety

On all jobs, only one person, generally the lead person should give signals to the crane operator. If you are assigned the job of directing the crane, follow these basic rules:

1. Loads shall not be carried or lifted over personnel or vehicles, and personnel shall never walk under a suspended load.
2. Always use standard hand signals to direct the crane operator.
3. Stand clear and place yourself where the operator can plainly see you and you can see the operator.
4. If you can't see the load and another person is signaling to you, be sure everyone is in the clear before you give the signal to the operator. Remember, it takes time to relay signals.
5. Never permit a load to be lowered, raised, or swung over a worker's head. If the operator can see the load, it's the operator's responsibility -without exception - to see that this rule is followed
6. Remember if you are not visible you are in danger.

HAND SIGNAL CHART





## 16.7 Welding Safety

Welding operations can be found in almost every type of industry. Welders must be qualified to do the work, and part of their education includes welding safety.

If you are a welder, or work near a welding operation, you may encounter any of these hazards:

Excessive Noise

- Fire or Excessive Heat
- Electrical Shock
- Ultraviolet Radiation

All of these hazards can cause an injury. Knowing how to protect your self is important. To protect yourself from excessive noise, you must wear hearing protection if the noise level exceeds regulatory standards

Fire and excessive heat are hazards with great potential for injury and damage. If welding is done in an area where a fire hazard exists, a welding permit should be used in accordance with established procedures. A spark or a piece of hot slag could easily ignite these materials and cause a tragic fire. To protect yourself from burns from these sparks and pieces of slag, wear appropriate Personal Protective Equipment (PPE) such as aprons, gloves, leggings, and footwear.

Ultraviolet (UV) radiation can cause burns to the skin and eyes. Welding hoods and special welding goggles with UV filter lenses and side shields are designed to protect your eyes and face from UV exposure. Appropriate gloves and aprons must be used to protect exposed skin. Welding curtains may be used for the same purpose to protect others in the vicinity of the welding area.

You can protect yourself from the physical hazards of welding.

## 16.8 Gas Cylinder Safety

All pressurized gas cylinders should be stored away from source of ignition and oxidizing materials.

Gas cylinders (LPG and acetylene) should always be used upright, fitted with regulators, pressure gauge and flashback arrestors.

Cylinders should never be dropped on ground and rolled. It should be carried on trolleys.



Never apply external heat on cylinders for removing gas it is dangerous and may lead to explosion of cylinder/s.

Flammable gas cylinders to be stored away from oxidizing materials.

#### Checklist for Compressed Gas Cylinder Safety

| Sl | Description                                                                                                                             | Yes/No |
|----|-----------------------------------------------------------------------------------------------------------------------------------------|--------|
| 01 | Is there "no smoking" signs posted in the area?                                                                                         |        |
| 02 | Is the storage area clearly identified, dry, and well-ventilated?                                                                       |        |
| 03 | Are the cylinders stored in an upright position?                                                                                        |        |
| 04 | Are the cylinders secured with a chain or appropriate belt above the midpoint, but below the shoulder?                                  |        |
| 05 | Are the cylinders capped and valves closed when not in use ?                                                                            |        |
| 06 | Is the storage area at least 15' away from all flammable, combustible or incompatible substances?                                       |        |
| 07 | Are cylinders stored with the same hazard class?<br>(Note: Inert gases are compatible with all other gases)                             |        |
| 08 | Are cylinders stored so that full cylinders remain separate from empty cylinders?                                                       |        |
| 09 | Are cylinders segregated into "FULL" or "EMPTY" groups at locations or in racks for each category?                                      |        |
| 10 | Are compressed gases handled only by properly trained persons?                                                                          |        |
| 11 | Are cylinders transported in Trolley?                                                                                                   |        |
| 12 | Is all pressure from regulators and hoses not currently used removed?                                                                   |        |
| 13 | Are cylinders which require a key to open the main valve shall have the key left in place on the cylinder valve while it is open?       |        |
| 14 | Are the Cylinder and Torch fitted with Flash Back arrestor on both ends ?                                                               |        |
| 15 | Are only approved valves, regulators, manifolds, piping and other associated equipment used in any system that requires compressed gas? |        |
| 16 | Is the LPG Cylinder is fit for use ?<br>(Check Due for Pressure Testing date on LPG Cylinder.)                                          |        |
| 17 | Are damaged or leaking cylinders reported to HSSE immediately?                                                                          |        |

### 16.9 Resting Below Equipment / Vehicles

Under no circumstances any person to be sleeping/taking rest below any vehicle or equipments.

### 16.10 Using Jack Safely

To avoid having an accident of your own follow these simple, basic rules:

1. Use a jack with a rated capacity that equals or exceeds the load you're lifting.
2. Always set the jack on a firm and level foundation.

3. To prevent slipping, use a wooden-block softener between the head of the jack and the load.
  4. Set the jack perpendicular, at a right angle, to the load.
  5. If there is a chance the load will swing to the side, install props or guys before doing any lifting.
  6. Have enough help when you install or move a jack.
  7. When you're working on a floor of any kind, make sure the load limit of the floor isn't exceeded.
  8. Before working under a raised load install blocking to keep the load from accidentally falling.
  9. Keep jacks in good shape and well lubricated, but only lubricate at the points where lubrication is specified. Check for broken teeth and other defects. Never throw or drop jacks.
  10. When a jack develops any defect whatever, turn it in for repair and be sure to test it under load before putting it back in service.
- Make sure you are using your jack the safe way.

## **17. Sand Blasting Safety**

Grit / shot blasting shall only be carried out by personnel wearing appropriate protective clothing,

The work site must be kept in good order, gangways, walkways etc shall be clear of hoses, pots, containers etc. at all times.

### **17.1 Safety Requirements**

Deadman switch/handle:

Deadman handle - incorporating a remote shut-off control valve is to be installed on ALL blast hoses.

Earthing - No blasting is to be carried out without proper earthing. This is to avoid static electricity.

### **17.2 Personal Safety Gear**

Full sleeve cotton coveralls, long sleeve gloves, safety boots, blasting helmet with a provision of fresh air supply through dual filter system. Remote control with Deadman and one assistant at all times during operations.

For painters, safety requirements are, cotton coveralls, full sleeve gloves, barrier cream, safety shoes, safety glasses/goggles, hard hat, face covering, spray masks.

### **17.3 Corrosion Checks on Abrasive Blasting Pots / Air Receivers**

Due to the water content in compressed air, corrosion is likely to occur, corrosion checks are to be carried out daily during use.

Air receivers, Compressors, and pots should be fitted with moisture separators. Water is to be drained daily.

### **17.4 Fresh Air Supply to Blasters and Painters**

The air is filtered through a multistage cartridge regulated and directed to Blasters / painters helmet. The air receiver filters and helmet is to be inspected daily during use.

DO NOT POINT YOUR GUN/DISCRAGE HOSE TOWARDS POPLE/VEHICLE OR AREA WHICH CAN CAUSE INJURY OR DAMAGE.

## **18. Important Telephone Numbers**

|              |                  |
|--------------|------------------|
| Port Safety  | +91 9924 333 333 |
| Port control | +91 9904 086 633 |
| Security     | +91 9574 109 993 |

Fire station is manned round the clock; they may be contacted for any assistance in emergency.

## 19. Contractor HSE Performance Assessment

Contractor HSE performance is assessed using the form and scoring rules of the GPPL Contractor Safety Performance Assessment SOP, Version 3.0 (Local Process Owner: Head of HSE). The assessment is carried out by the Contract Owner (Department) as a minimum annually, or before clearance of the final invoice for a short-tenure contract. The KPI is 100% assessment of all contractors in scope.

### Applicability

A Contractor HSE Performance Assessment shall be carried out where:

- the contract is classified as High Risk;
- the number of workers employed (directly or by sub-contract) is more than 20 on any day;
- the contract tenure is more than six months.
- Regardless of the above, the following contractors shall always be assessed:
  - Internal Transport Vehicle Contractor - Container Operations
  - Internal Transport Vehicle Contractor - Bulk / GC Operations
  - Lashing / Unlashing Contractor
  - Bulk Cargo Handling and Stevedoring Contractor
  - Fertiliser Bagging and Loading Contractor
  - Sewage Treatment Plant Operations and Maintenance Contractor
  - Marine Craft / Tug / Boat Provider
  - Electrical Contractor working in Substations
  - Stuffing / De-stuffing Contractor

### Structure of the assessment form

| Part                                           | Content                                                                                                                                                                                                                                                                                         | Source of evidence                                        |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| 1. Basic information                           | Details of the contractor, the contract and the activity being assessed.                                                                                                                                                                                                                        | Contract, scope of work                                   |
| 2. Lagging indicators                          | Records of incidents, near misses, unsafe observations and Non-Compliance Reports (NCRs). Incidents alone are not a measure of HSE performance, but they give the Contract Owner visibility.                                                                                                    | GIZMO records, NCRs, e-mails                              |
| 3. Leading indicators - assessment of controls | Safety is the presence of defences and controls, not the absence of accidents. Each agreed control is rated by the assessor using one of three ratings, and every rating must be supported by a comment. GIZMO incident numbers and other records should be referenced to substantiate remarks. | Inspections, audits, Gemba, risk assessments, PTW records |
| 4. Assessors and final assessment              | Details of all assessors involved and the overall result: Acceptable, Conditional                                                                                                                                                                                                               | Contractor Safety Performance                             |

|                |                                                          |                                            |
|----------------|----------------------------------------------------------|--------------------------------------------|
|                | Acceptable or Un-acceptable.                             | Assessment Sheet<br>(Excel, issued by HSE) |
| 5. Action plan | Areas for improvement, actions, owners and target dates. | Improvement action plan                    |

#### Scoring and final assessment

| Overall presence and effectiveness of controls | Final assessment                   | Required follow-up                                                                            |
|------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------|
| 90% and above                                  | Acceptable Performance             | Continue; re-assess at the next scheduled cycle.                                              |
| 60% to below 90%                               | Conditional Acceptable Performance | Contract Owner prepares an improvement action plan; contractor is re-assessed after 3 months. |
| Below 60%                                      | Un-acceptable Performance          | Contractor may be employed only after derogation approved by the Managing Director.           |

The Contract Owner and the Head of Department shall sign off the completed assessment and share it with HSE and Procurement. Assessment records shall be retained for a minimum of three years. In line with APMT-HSSE-REQ-011 V3.0 (Close-out), APM Terminals Pipavav maintains a list of approved contractors and vendors, which is reviewed at least annually by a competent person within HSE or Procurement, and the assessment result is used in future bid lists and contract award decisions.

## **Appendices**

Appendix A- Fatal 5 – Global Operational Standards - Safety

Appendix B- Bid Package: Request for Information (Wherever asked)

Appendix C – Safety Induction

# Appendix A: Fatal 5 – Global Operations Safety Standards

## Transportation

### Fatal 5 – Transportation

APM Terminals Global Standard  
Function/Department Name: Safety & Resilience  
Document Number: APMT-HSSE-REQ-015  
Version: 3.0



APM Terminals shall identify and control the risks associated with the movement, the use and maintenance of mobile equipment and pedestrians.

#### 1. Purpose

On-site pedestrians and mobile equipment have been involved in a significant proportion of fatal and high potential incidents.

Effective compliance with this standard shall be demonstrated by:

- Identification and management of hazards and risks
- Minimizing interactions between pedestrians and mobile equipment through safe design
- Use of technologies to alert operators, enhance visibility, and enable intervention
- Safe efficient operation of vehicles and mobile equipment
- Establishment of traffic management plans and procedures
- Managing operator fatigue
- Effective communication between operators, pedestrians and those supervising mobile equipment operations
- Establishment of safe procedures for pedestrian/equipment interaction
- Consistent use of high visibility clothing and reflective tape/ markings on vehicles

#### 2. Scope

This Standard is mandatory for APMT owned and/or managed/controlled Terminals and Projects. Where APMT does not own and/or manage/control Terminals or Projects, every effort should be made for the Joint Venture to adopt the highest Standard.

#### 3. Key Definition/Term

- **Mobile equipment:** Mobile equipment includes light vehicles such as cars, trucks, vans, utility vehicles, and shuttle buses, as well as operational machinery like reach stackers, terminal tractors (TTs), rubber-tyred gantry cranes (RTGs), large and small forklifts, straddle carriers, trains, and similar equipment used in operational areas.
- **Pedestrian:** A person who is on foot within an operational area, including employees, contractors, visitors, or vehicle operators who are outside their vehicles.



## Fatal 5 - Transportation

APM Terminals Global Standard

Function/Department Name: Safety & Resilience

Document Number: APMT-HSSE-REQ-015

Version: 3.0



- **Pedestrian Walkway:** A designated path or route specifically intended for the safe movement of pedestrians, physically separated or clearly marked to minimize interaction with mobile equipment within an operational area.
- **Traffic Flow:** The directional movement of vehicles operated by employees, contractors and visitors as well as the directional movement of people.
- **Traffic Management Plan:** A formal, documented plan developed to systematically identify, evaluate, and mitigate risks related to vehicle and pedestrian traffic within a terminal or project site. The plan includes the design and implementation of controls such as traffic routes, signage, speed limits, pedestrian pathways, barriers, and lighting, ensuring safe and efficient movement while complying with relevant regulatory and safety standards.
- **No-Go Items:** Key features or safety systems on mobile equipment that, when not working properly or missing, prevent the equipment from being safely operated until fixed.
- **Permit to Work (PTW):** A permit to work is a formal authorization system that ensures non-routine high-risk activities, are properly planned, assessed, and controlled before work begins. It confirms that all safety measures are in place and that the task is approved by a competent authority.
- **Lock-Out/Tag-Out (LOTO):** A controlled safety process that isolates energy sources on equipment by applying locks and tags, preventing unintentional activation during maintenance activities.

### 4. Responsibilities

- All **Regional Managing Directors (RMD)** and **Head of Project Execution (PE)** shall set expectations and assure that each site in their geographical scope of responsibility has the resources needed to successfully implement and maintain controls provided in this document.
- **Terminal Managing Directors and Project Directors** shall ensure that controls required in this document are implemented in their operations and escalate issues impacting the implementation and maintenance of controls to their RMD in a timely manner.
- **COO/ Head of Operation** shall ensure that the controls required in this document are implemented in their operation(s) and that the application and effectiveness of those controls is adequately supervised to ensure they are respected and adhered to.
- **Supervisors and Team leaders** shall ensure that the controls provided in this document and associated risks are communicated with their team(s) to ensure awareness and ensure that people are adequately trained to work with the control measures.
- **Employees, contractors, third party and visitors** shall adhere to control measures communicated to them, report any dysfunctional or ineffective controls to their manager as soon as possible and share their ideas on improving the controls involved in their work.

## Fatal 5 - Transportation

APM Terminals Global Standard

Function/Department Name: Safety & Resilience

Document Number: APMT-HSSE-REQ-015

Version: 3.0



- **Terminal and Project Heads of HSSE** shall establish and execute a terminal implementation plan together with their Global HSE BP and Terminal MD to ensure that all controls are implemented in their operation(s).
- The **Global Head of S&R** shall maintain these Global Standards and ensure assurance is obtained on its implementation and effectiveness in APM Terminals.
- **HSE Business Partners** shall establish and execute an implementation plan to ensure that the responsibilities provided in this document are allocated and controls required are implemented in all operations and sites.

### 5. Process

Not applicable.

### 6. Requirements

Sites shall ensure compliance with all applicable requirements defined in this document and, in addition, with the Visual Control Points and Kaikaku Pedestrian Safety requirements referenced in the document's reference section.

#### 6.1 *Systems & Processes*

- 6.1.1 Sites shall undertake risk assessments to determine hazards and assess risks related to pedestrian exposure, operation of mobile equipment, and the interaction between automated and manual operations.
- 6.1.2 Principles of the 'hierarchy of control' shall be applied when implementing risk controls to ensure pedestrian, operator and equipment safety.
- 6.1.3 The following measures shall be adopted as a minimum to control the movement, use and maintenance of equipment and pedestrians.
  - Terminal design and layout
  - Traffic flow
  - Access control and no-walk zones
  - Providing mobile equipment that is fit for purpose
  - Maintaining mobile equipment in a safe condition
  - Using mobile equipment in a safe manner
  - Training and management of mobile equipment operators

## Fatal 5 - Transportation

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- 6.1.4 Sites shall maintain an up-to-date traffic management plan and protocols that ensure the safe movement of both pedestrians and mobile equipment. The plan shall include controls and defined interaction protocols to manage the interface between pedestrians and equipment. For all identified risks, sites shall establish and implement an action plan to address residual risks, including preventive measures and controls to protect both pedestrians and mobile equipment.
- 6.1.5 Sites shall review the traffic management plan whenever there is a change to operations or if there has been an incident involving pedestrians and mobile equipment and in any case, at intervals not exceeding one year.
- 6.1.6 Sites shall establish, implement, and maintain detailed Standard Operating Procedures (SOPs) and Work Instructions (WIs) for all activities where pedestrian safety is a concern. These documents shall specify procedures for managing interactions between pedestrians and mobile equipment and shall be linked to, and integrated with, their traffic management plan.
- 6.1.7 Sites shall establish and maintain a Permit to Work (PTW) system for non-routine tasks involving interactions between pedestrians and mobile equipment. The PTW system shall ensure that associated risks are identified, assessed, and controlled prior to the commencement of such activities.
- 6.1.8 Sites shall establish and maintain a Lock-Out/Tag-Out (LOTO) system to prevent the accidental energization or activation of equipment during maintenance activities, thereby ensuring the safety of pedestrians and personnel involved in equipment repair operation.
- 6.1.9 Sites shall establish and maintain a formal change management procedure to ensure that all changes to processes, systems, equipment, or operations appropriately consider pedestrian safety and operational impacts. Changes shall be communicated, personnel trained as needed, and risk assessments conducted to identify controls and residual risk before implementation.
- 6.1.10 Terminals shall utilize the Terminal Operating System (TOS) to restrict access of mobile equipment within operational areas during equipment failures, maintenance activities, container inspections, or any other pedestrian-involved activity in order to safeguard pedestrians and prevent incidents.
- 6.1.11 Sites shall ensure that planning and operations teams maintain clear and continuous communication whenever pedestrians access areas with equipment interaction, and, where practicable, implement systems such as flashing lights, alerts, and live visual tracking to signal pedestrian presence.

### **6.2 Pedestrian Safety**

- 6.2.1 Sites shall establish no-walk zones within all container stacking areas during operations. Site procedures shall be defined to incorporate:

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- Planned pedestrian access to container stacking areas (out of operations). Procedures are to incorporate a requirement for mobile equipment to cease operations whenever pedestrians are in the designated area.
  - Where planned access is carried out (such as in the case of manually checking containers, cargoes or carrying out maintenance activities), the location of personnel should be clearly identified, physically indicating their presence to equipment operators.
  - Physical protections shall be identified and implemented.
- 6.2.2 Sites shall conduct a risk assessment to identify any other zones on the site which should be designated no-walk zones. The risk assessment shall also identify specific operations that require exclusion zones, such as in close proximity to mobile equipment and where loads are being handled, e.g. General cargo, wharf apron.
- 6.2.3 The size of exclusion zones shall be based on the outcomes of the risk assessment and shall consider the potential for unexpected and/or uncontrolled movement of the load such as swinging, bouncing or rolling (identification of drop zones).
- 6.2.4 Sites shall clearly define temporary operational zones and designate them as restricted no-walk zones (e.g., during general cargo operations).
- 6.2.5 A site layout plan shall be developed which designates all areas as either:
- **Zone A:** "Unrestricted" zone that allows free access to any person, or Transportation
  - **Zone B:** "Restricted Walking" zone permitted only for persons who are aware of the risks and have been trained, inducted, are wearing PPE and have been authorized to do so; or
  - **Zone C:** "No-Walk" zone where walking by any person at any time is strictly prohibited other than in accordance with Area Isolation procedures i.e. all Mobile Equipment is stopped from entering that area.
- 6.2.6 Sites shall establish pedestrian segregation measures in areas where multi-modal operations such as container, general cargo, container repair yards, workshops and bulk operations are conducted.
- 6.2.7 Sites shall ensure that pedestrians carrying communication devices for operational use within operational areas where mobile equipment is operating or likely to operate use these devices only within designated and clearly marked safe zones.
- 6.2.8 Sites shall clearly identify personnel work areas, such as twist lock stations, gates, etc., ensuring these areas are highly visible to equipment operators, adequately protected with safety barriers, and provided with sufficient space and adequate lighting. Sites shall also ensure safe access routes and/or shuttle bus services for personnel commuting to and from these work areas.

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- 6.2.9 Sites shall ensure that all pedestrians, including employees, contractors, and visitors, wear the required personal protective equipment (PPE) including high-visibility clothing, hard hats, and safety boots in designated areas.
- 6.2.10 Sites shall prohibit the use of personal entertainment devices, including mobile phones, music players, and similar items, with or without earpieces, within operational areas to prevent distractions and ensure safety.
- 6.2.11 Sites shall ensure that operators remain inside equipment at all times during operation. In the event of an equipment breakdown, operators shall promptly alert the designated personnel, remain inside the cabin, and await assistance or recovery.
- 6.2.12 Sites shall ensure that the use of flagmen or traffic controllers is considered only as a measure of last resort. Where deployment is necessary, personnel shall be positioned in a location that ensures adequate protection from potential contact with mobile equipment or suspended loads.

### 6.3 Mobile Equipment Safety

- 6.3.1 Sites shall ensure that all mobile equipment operated by APM Terminals or its contractors is maintained in a safe and serviceable condition.
- 6.3.2 Sites shall identify critical safety devices required for each type of mobile equipment to ensure safe operation.
  - Sites shall establish procedures to ensure that a pre-operational check of equipment in operation is conducted and documented by the operator or a qualified person to verify equipment readiness and operational safety. This check shall cover critical safety devices identified as 'no-go' items and must be performed at the start of each shift or whenever there is a change of operator.
- 6.3.3 Sites shall ensure that mobile equipment is not operated if any safety critical mechanical or electrical devices such as brakes, anti-collision systems, or emergency stop functions are found to be non-functional, in addition to any identified 'no-go' items.
- 6.3.4 Sites shall implement a visible identification system for all mobile equipment, such as clearly displayed asset numbering on sides, to ensure easy recognition and traceability.
- 6.3.5 Sites shall ensure that mobile equipment is equipped with appropriate visual identification controls such as reflective tape, flags, lights, or beacons to enhance visibility and improve pedestrian and operator safety.
- 6.3.6 Sites shall ensure that regular and preventive maintenance is carried out by qualified maintenance personnel and includes certification, inspection and servicing of all fitted safety and warning devices.
- 6.3.7 Sites shall develop and implement procedures to ensure that mobile equipment operators:
- 6.3.8 Are trained, assessed, and competent in the use of the equipment.

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- Verify that loads are stable and/or secured prior to movement
- Remain at the equipment controls while a load is attached
- Immediately report any equipment damage or malfunction
- Are familiar with and comply with site traffic management protocols
- Do not bypass or deactivate limit switches or any other safety functions during operations
- Do not leave equipment idling unattended unless permitted under defined maintenance procedures
- Do not engage in any activity that may distract them from their operational duties
- Ensure that all equipment guarding is in place and suitable for the intended task
- Exercise Stop Work Authority and take corrective action when an unsafe condition or behaviour is identified
- Operate equipment only within designated areas and as per authorized tasks or routes.
- Do not drive or position equipment under suspended loads

6.3.9 Sites shall develop and implement procedures to ensure that maintenance activities are carried out with appropriate barriers and isolation controls, including:

- Application of lockout devices and warning/out-of-service tags when equipment is not in a safe working condition
- Use of physical barriers, hazard lighting, and warning signage to restrict access and alert personnel to maintenance activities
- Isolation of wheels (e.g., with wheel chocks) when work is being performed on mobile or wheeled equipment
- Installation of trestles, supports, or equivalent securing mechanisms to prevent uncontrolled movement or descent of hydraulic systems, load-bearing equipment, hydraulic rams, or attachments

6.3.10 Sites shall establish and implement traffic management protocols that prescribe the following requirements:

- Sites shall establish speed limits not exceeding 30 km/h (20 mph). Reduced speed limits shall be applied in accordance with local regulations, or when a risk assessment identifies contributing factors such as high pedestrian activity, limited visibility, poor surface conditions, equipment or load instability, steep inclines or declines, sharp turns or confined areas, intersections, inadequate lighting, adverse weather, or the presence of temporary work zones.

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- Exceptions to the speed limit shall apply only in emergency situations for designated emergency vehicles, including ambulances, fire trucks, and HSSE vehicles, as defined in site-specific procedures.
- Speedometers or equivalent speed-monitoring devices shall be installed and maintained on all mobile equipment.
- Overtaking within the sites shall be prohibited to reduce collision risks and maintain safe and consistent traffic flow.
- Right-of-way practices shall be clearly defined, communicated, and enforced to ensure the safe and orderly movement of vehicles and pedestrians across the site. This shall include prioritization of specific equipment types, pedestrian crossings, and designated traffic routes.
- Equipment shall only perform U-turns at designated locations within the site, in accordance with a formal protocol.
- Reversing of mobile equipment on site shall be avoided except when a documented risk assessment has been completed, appropriate control measures are in place, and the activity is authorized under the Traffic Management Plan.
- Systems shall be established to control the movement of mobile equipment and pedestrians during standard operations and activities such as maintenance, refueling, parking, boarding/disembarking equipment, accessing refrigerated container areas, and fumigation.
- Safe following distances shall be maintained, taking into account operational factors, visibility limitations, and equipment blind spots.
- Mobile equipment shall operate with running lights illuminated at all times.
- Parking procedures shall include lowering of attachments/loads as far as practicable, application of the parking brake, shutting off the engine, using wheel chocks where required, and avoiding parking on inclined surfaces during operations, maintenance, or temporary stoppages to prevent accidental movement. Reverse parking shall be implemented as per the site traffic management plan.
- Designated safe zones shall be provided for external truck drivers to perform activities such as locking/unlocking containers, tarping, or tying down, and clearly defined safe areas for operations involving straddle carriers.
- One-way traffic routes, controlled entry/exit points, and designated no-entry zones shall be implemented to reduce the likelihood of traffic-related incidents.
- Monitoring and communication processes, including signalling systems, shall be implemented to ensure operators are aware of the presence and location of personnel or equipment in the area, especially in blind spots.

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- Mobile equipment shall be restricted from entering pedestrian areas when foot traffic is present.
  - All traffic management systems and procedures shall comply with applicable regulations, standards, and local legal requirements.
- 6.3.11 Sites shall ensure that all mobile equipment, whether owned, leased, or hired, is used only when in a safe and properly maintained condition.
- 6.3.12 Sites shall ensure that all mobile equipment is used solely for its intended purpose and is fit for use, maintained in accordance with the Original Equipment Manufacturers (OEM) standards, specifications, and any relevant engineering requirements.
- 6.3.13 Sites shall ensure that leased or hired mobile equipment operating on site complies with APM Terminals and local legislative requirements and, as a minimum have:
- Maintenance records including relevant test certificates
- 6.3.14 Sites shall ensure that mobile equipment is fitted with safety devices as required by law or identified through APM Terminals risk assessments. The minimum range of safety devices to be installed and used are detailed below.

| Item                                                                                                                         | Mandatory for all Equipment |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Speed Limiter $\leq$ 30 Km/h (except emergency vehicles as per 5.3.10)                                                       | Yes                         |
| Reversing / gantry alarms                                                                                                    | Yes                         |
| Anti-slip stairs and platforms                                                                                               | Yes                         |
| Headlights wired always on                                                                                                   | Yes                         |
| Roll over protection for cab                                                                                                 | Yes                         |
| Guard frame for rear of cab protects against trailer overrun                                                                 | Yes                         |
| Seat belts                                                                                                                   | Yes                         |
| Flashing / Beacon lights                                                                                                     | Yes                         |
| Horn                                                                                                                         | Yes                         |
| Wiper                                                                                                                        | Yes                         |
| Portable Fire Extinguisher                                                                                                   | Yes                         |
| Blind spot and Pedestrian detection systems (360 degrees visibility around the equipment using mirrors, sensors, or cameras) | Yes                         |



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- 6.3.15 Sites shall ensure that all equipment is equipped with safety features in accordance with the requirements specified in the latest Asset Design and Engineering Standards, applicable legal requirements, or as identified through risk assessments.
- 6.3.16 Sites shall ensure that authorized external third-party vehicles entering APM Terminals comply with APM Terminals and local legislative requirements.

### 6.4 Equipment Infrastructure

- 6.4.1 Sites shall design roads, walkways, and terminal layouts to minimize risks to pedestrians. Design considerations shall include, but not be limited to:
  - Pedestrians and vehicles can access and circulate safely.
  - Transportation of personnel within the site using shuttle buses or other vehicles, including vessel crew.
  - Suitable traffic calming / separation measures are implemented.
  - Using physical barriers (e.g. concrete jersey barriers, steel crash barriers) to identify and separate pedestrians and workstations from mobile equipment, including main gate, pre-trip, pinning station, etc. Physical barriers shall be designed to withstand the impact forces of mobile equipment and shall conform to applicable international standards (e.g., EN 1317-2).
  - Installation and maintenance of road traffic control signs and markings, including but not limited to directional signs, speed limit signs, no-entry signs, lane separation markings for one-way and two-way traffic (where applicable), pedestrian crossing and walkway signs, personal protective equipment (PPE) requirement signs, hazard warning signs, and signage conveying site-specific rules and safety requirements in accordance with ISO 7010 and/or applicable local regulation .
  - Clearly defining pedestrian walkways and ensuring they remain unobstructed.
  - Painted pedestrian walkways on ground shall be at least one meter wide, bounded on either side by a continuous line and marked with alternating coloured stripes. Use of an icon depicting a pedestrian is recommended.
  - Locating workstations, pinning stations, equipment, bins, racks etc. in areas clear of the regular paths of mobile equipment.
  - Designating safe areas for external trucks to pin and unpin loads outside operational areas. Use of hard barriers should be used wherever possible.
  - Installing visibility aids such as bollards on blind corners and convex mirrors on intersections, blind corners and building entries/exits.
  - Maintaining lighting levels adequate for the range of operations carried out, including night operations. This includes ensuring a minimum lighting of 10 lux on access routes for people and mobile equipment and a minimum lighting of 50 lux in operational

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areas where people and mobile equipment work in close proximity (Most jurisdictions specify local legal requirements for lighting levels in work areas).

- Where fixed lighting is unavailable or fails to meet the required illumination levels, suitable portable lighting shall be provided to ensure adequate visibility and safe working conditions.

6.4.2 Sites shall install speed reduction measures, such as speed humps, to assist in reducing vehicle speeds in known areas of pedestrian activity.

### 6.5 People

6.5.1 Sites shall ensure that all employees, contractors, visitors, and external truck drivers complete the relevant HSSE induction prior to their first entry and attend refresher training at defined intervals or as required by changes in operations or procedures.

- These inductions shall include requirements of the traffic management plan and pedestrian safety control measures.
- These inductions shall also include task-specific hazards, associated risks, and the corresponding control measures.

6.5.2 Sites shall ensure that any changes to traffic management protocols are effectively communicated to the workforce and other relevant personnel.

6.5.3 Sites shall ensure that employees and contractors operating mobile equipment for APM Terminals:

- Are trained and assessed as competent before operating mobile equipment.
- Undergo regular reassessment of their competencies.
- Hold a current and relevant permit, license or certificate of competency as required by local legislation.

6.5.4 Sites shall ensure that truck drivers, including third-party drivers entering our premises, do not bring non-inducted individuals or passengers such as children, helpers, or pets on site and shall:

- In Forklift, Reach Stacker, RTG and RMG container handling operations, remain in the vehicle while the truck is being loaded or unloaded.
- In facilities where the truck drivers are required to exit their vehicles, such as straddle operations and general stevedoring, implement procedures to ensure drivers remain in designated safe areas and comply with pedestrian safety requirements for operational areas for the duration of their visit.
- Secure or un-secure loads only in areas designated for this purpose and in a safe manner.

6.5.5 Sites shall ensure that APM Terminals drivers operating transport vehicles on public roads:

- Comply with all applicable local legal requirements, including holding valid licenses or

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- permits and carrying specialized safety equipment when transporting dangerous goods.
  - Notify management immediately if their license is suspended or cancelled.
  - Provide valid proof of current licenses and permits upon request.
- 6.5.6 Sites shall establish and implement fatigue management procedures for equipment operators. These procedures shall include, at a minimum:
- Defined work and rest schedules aligned with operational demands and local regulatory requirements.
  - Limits on maximum operating hours to reduce the risk of fatigue-related incidents.
  - Monitoring and reporting mechanisms to identify signs of fatigue and enable timely intervention.
  - Provisions for rest breaks and shift rotations to support operator alertness and well-being.
- 6.5.7 Sites shall establish formal procedures to manage persons under the influence of drugs, alcohol or medication that impairs their operating capabilities, including identification, reporting, and removal from duty in accordance with company policy and applicable regulations.
- 6.5.8 Sites shall implement a fitness-for-work program designed to ensure personnel are capable of safely performing their duties. The program shall aim to minimize risks associated with factors including, but not limited to:
- Environmental conditions, such as heat stress
  - Fasting
  - Fatigue
  - Medication and medical conditions, including eyesight, colour blindness and epilepsy
  - Use of drugs and alcohol

## 7. References

| Reference Material                                                                        |
|-------------------------------------------------------------------------------------------|
| <a href="#">Asset Design and Engineering – Equipment Specifications</a>                   |
| Traffic Management Pedestrian Controls - <a href="#">Visual Control Points</a>            |
| Traffic Calming Measures - <a href="#">Visual Control Points</a>                          |
| Traffic Management Plan - <a href="#">Visual Control Points</a>                           |
| Traffic Management Mobile Equipment - <a href="#">Visual Control Points</a>               |
| Transportation - <a href="#">Visual Control Points</a>                                    |
| HSE – A guide to workplace transport safety   2014 - <a href="#">External Publication</a> |
| Kaikaku Pedestrian Safety - <a href="#">Requirements</a>                                  |
| Sample Traffic Management Plans - <a href="#">TMP</a>                                     |

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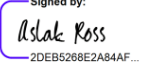
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### 8. Document Control

| Document Control Details |           |                                       |                      |                          |                                                |
|--------------------------|-----------|---------------------------------------|----------------------|--------------------------|------------------------------------------------|
| Date Issued              | Version # | Standard Owner<br>(Name & Role)       | Reason for<br>Change | Review By<br>(Name)      | Approved By<br>(Name & Role)                   |
| 10-01-2015               | 1.0       |                                       | Creation             |                          |                                                |
| 21-Jul-2022              | 2.0       |                                       | Update               |                          |                                                |
| 10-Jul-2025              | 3.0       | Arun Kalam<br>(Global HSE<br>Manager) | Fatal 5 updates      | S&R functional<br>review | Aslak Ross<br>(Head of Safety<br>& Resilience) |

|                                                                  |                                                                                                                                          |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard Owner:</b><br>Arun Kalam<br>Global HSE Manager       | <b>Owner Signature:</b><br><br>46CEBD1581CA457...      |
| <b>Approved By:</b><br>Aslak Ross<br>Head of Safety & Resilience | <b>Approver Signature:</b><br><br>2DEB5268E2A84AF... |

### 9. Annexes

#### 9.1 Annex A: Acronyms and Abbreviations

| Terms       | Definitions                       |
|-------------|-----------------------------------|
| <b>TMP</b>  | Traffic Management Plan           |
| <b>TOS</b>  | Terminal Operating System         |
| <b>PTW</b>  | Permit to Work                    |
| <b>LOTO</b> | Lock-Out /Tag-Out                 |
| <b>PPE</b>  | Personal Protective Equipment     |
| <b>OEM</b>  | Original Equipment Manufacturer's |

# SUSPENDED LOAD & LIFTING

## Fatal 5 – Suspended Loads and Lifting

APM Terminals Global Standard  
Function/Department Name: Safety and Resilience  
**Document Number:** APMT-HSSE-REQ-029  
**Version:** 3.0



APM Terminals shall use appropriate equipment and safe system of work to minimize the likelihood of personnel being injured by swinging, shifting or falling loads during all load handling operations.

### 1. Purpose

The purpose of this standard is to provide minimum critical controls to reduce risks associated with Suspended Loads and Lifting to prevent injury and ill-health.

### 2. Scope

The standard applies, but is not limited to:

- mechanical lifting equipment (e.g., but not limited to gantries, reach stackers, empty handlers, RTG, MHC, mobile cranes, telehandlers, hiab cranes, forklift trucks, jacks, excavators etc.)
- lifting tackle (strops, chains, wire ropes, hooks, shackles, etc.) used in rigging a load
- lifting attachment points (certified lifting points on the item of plant to be lifted)
- the load being lifted
- the lift involving lifting persons

This Standard is mandatory for owned and/or managed/ Controlled<sup>1</sup> Terminals and Projects. Where APMT does not own and/or manage/control Terminals or Projects, every effort should be made for the Joint Venture to adopt the highest Standard.

It is relevant to: Terminal's/Site's employees, contractors, customers, suppliers, visitors, and any others interacting within our premises.

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<sup>1</sup> **Operational Control** is defined as the situation where APMM or one of its subsidiaries holds the governing authority and responsibility for health, safety, security and environmental (HSSE) management of the people, processes, and facility either directly or indirectly via contractual arrangements.

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### 3. Definitions / Key Terms

| Term                     | Definition                                                                                                                                                                                                                                                                                                  |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suspended load           | Any load above ground level                                                                                                                                                                                                                                                                                 |
| Lifting                  | The action of moving of something from a lower to a higher position                                                                                                                                                                                                                                         |
| Lifting Equipment        | Comprises of lifting appliances, lifting accessories and lifted equipment; all lifting equipment shall be marked with the safe working load or working load limit (WLL) and identification number.                                                                                                          |
| Lifting Appliances       | Equipment performing the lifting                                                                                                                                                                                                                                                                            |
| Lifting Accessories      | Devices or equipment that connects the load to the lifting appliance, such as slings, removable eyebolts, chains, ropes, shackles, grabs, magnets, vacuum lifters, crane forks, lifting beams and spreaders                                                                                                 |
| Lifting Attachment       | A load-supporting device, such as a lifting lug, pad eye, trunnion, or similar appurtenance that is attached to the lifted load and designed for use with the specific load to which it is attached.                                                                                                        |
| Lifted Equipment         | equipment that is lifted, such as containers, man baskets, man cages.                                                                                                                                                                                                                                       |
| Routine lift             | A lifting operation that is straightforward and involves a standard operating procedure and is performed numerous times under similar conditions. Usually the loads are well within the capacity of the lifting equipment and do not require special rigging, unusual configurations or complex lift plans. |
| Non-routine lift         | A lifting operation that involves complexities or risks beyond those encountered in routine lifts. Non-routine lifts require thorough planning and necessitate a lift plan and a higher level of oversight by a Person-in-Charge.                                                                           |
| Lift plan                | A comprehensive document that outlines the procedures and considerations for a safe execution of a lifting operation that involves suspended loads. It ensures that all aspects of the lift are thoroughly planned and communicated to minimize risks, and safety of personnel and equipment.               |
| Safe Working Load (SWL)  | The maximum safe load (as indicated on the lifting equipment) that the lifting equipment can lift, move, lower or suspend under particular service conditions.                                                                                                                                              |
| Working Load Limit (WLL) | The maximum load which the lifting equipment is designed to raise, lower or suspend under ideal conditions, specified by the manufacturer.                                                                                                                                                                  |
| Qualified person         | A trained, competent and authorized person. A person 'assessed competent' has been assessed as competent by an industry recognized authority.                                                                                                                                                               |
| Person-in-Charge         | An authorized person to supervise the lifting or rigging operations.                                                                                                                                                                                                                                        |

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### 4. Responsibilities

#### 4.1 HSE Management

##### 4.1.1 Global Head of Safety and Resilience APM Terminals

- Maintain this document and ensure assurance is obtained on its implementation and effectiveness in operationally controlled APM Terminals.

##### 4.1.2 Regional HSE Business Partner or PE HSSE Business Partner

- Establish and verify if responsibilities are allocated, and process requirements are (qualitatively) implemented.
- Recommend any further changes or actions to ensure adequate management of working with suspended loads and lifting equipment.

##### 4.1.3 Terminal or Site HSE Leaders

- Ensure that the local SOP is subject to process confirmation or equivalent assurance.
- Verify that relevant Terminal/Site employees are trained, competent and authorized to handle (suspended) loads.
- Ensure that 3rd party contractors who are contracted by APMT or one of its subsidiaries, or relevant personnel are issued relevant Permit to Work for handling (suspended) loads of Criticality 2 and 3.

#### 4.2 Line Management

##### 4.2.1 Regional Managing Directors

- Set expectations and ensure that each Terminal/Site under their scope of responsibility has embedded the Suspended Loads and Lifting requirements and same is subject to process confirmation or equivalent assurance.

##### 4.2.2 Terminal or Site Managing Directors

- Establish and verify if responsibilities are allocated locally, and process requirements are implemented.
- Shall ensure everyone involved on site is informed of the requirements regarding suspended loads and lifting.

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### *4.2.3 Terminal or Site Functional Leaders / Heads of Functions*

- Implement and establish the Suspended Loads and Lifting requirements into the local procedures and a local SOP.
- Categorize loads (refer to Section 5).
- Monitor and supervise employees / workers so that they understand and comply with the controls for handling (suspended) loads as laid down in, but not limited to e.g., SOP, Work Instructions, Toolbox Talks.
- Verify that all potential risks to equipment, personnel and facility have been addressed.
- Assign a qualified person to develop Lift Plans and establish standard operating procedures and controls for performing lifting and hoisting operations.
- Have overall responsibility for lifting operations.
- Ensure that lifting equipment is certified to applicable standards and inspected before each use.

### *4.2.4 Person-in-Charge (for the lift)*

- As a qualified person responsible for overseeing and managing all aspects of a lifting operation involving cranes or other lifting equipment. This role is critical in ensuring the safe and efficient execution of lifts, particularly in complex or high-risk scenarios, such as e.g., construction sites. The 'Person-in-Charge' is responsible for directing load handling operations.

### *4.2.5 Engineering Specialist / Qualified Lifting Expert*

- A Subject Matter Expert in the field of lifting and suspended loads, who possesses the necessary education, training, and experience to design, plan, and oversee the safe execution of lifting operations.

### *4.2.6 Others*

- Where applicable, Terminal's/Site's employees, contractors, or suppliers interacting within our premises and engaged in lifting operations shall adhere to the requirements as laid down in these Suspended Load and Lifting requirements.
- Terminal's/Site's employees, contractors, customers, suppliers, visitors, and any others shall be explicitly instructed never to walk or to drive below a suspended load.



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### 5. Process

#### 5.1 Categorization

Suspended loads and lifting shall be categorized as follows:

| Lift Category                     | Key Requirements                                                                                                                                                                                                         |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Category 1 -<br>Routine lifts     | <ul style="list-style-type: none"><li>Task-based risk assessment as lift plan, which shall be prepared and used for routine lifts. This shall be covered in relevant standard operating procedures [SOPs].</li></ul>     |
| Category 2 -<br>Non-routine lifts | <ul style="list-style-type: none"><li>Assigned qualified Person-in-Charge for the intended lift</li><li>Permit to Work</li><li>Job specific risk assessment</li><li>Lift Plan by a qualified Person-in-Charge</li></ul>  |
| Category 3 -<br>Critical lifts    | <ul style="list-style-type: none"><li>Assigned qualified Person-in-Charge for the intended lift</li><li>Permit to Work</li><li>Job specific risk assessment</li><li>Engineered Lift Plan by a qualified expert</li></ul> |

##### Routine Lift – Category 1

A lifting operation that is straightforward and involves an SOP and is performed numerous times under similar conditions. Usually, the loads are well within the capacity of the lifting equipment and do not require special rigging, unusual configurations or complex lift plans. The planning of individual routine lifting operations is the responsibility of those who carry them out. Managers and operators shall be competent and trained to carry out the planning.

##### Non-routine Lift – Category 2

A lifting operation that involves complexities or risks beyond those encountered in routine lifts. Usually, the loads are closer to the limit of the capacity of the lifting equipment or require special rigging. Non-routine lifts require thorough planning and necessitate a specific lift plan and a higher level of oversight by a qualified Person-in-Charge.

##### Critical Lifts – Category 3

A lifting operation that involves complexities or high-risk factors beyond those of a non-routine lift. Usually the loads are heavy, complex and at the limit of the capacity of the lifting equipment and require special rigging or require more than one crane (tandem lifts). Critical lifts require thorough

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planning and necessitate a comprehensive engineered lift plan and a higher level of oversight by a qualified Person-in-Charge.

### 6. Requirements

#### 6.1 Planning Work

All terminal or site functional leaders shall ensure that lifting work is planned in accordance with below minimum critical controls and tools and resources are made available to Terminal's/Site's employees. In planning careful consideration shall be given to the hierarchy of controls.

- Provision and maintenance of lifting equipment required for safe handling of loads.
- Correct selection and use of lifting equipment required for safe handling of loads.
- Ensuring the competency of operators handling lifting equipment and loads.
- Proper evaluation of risks and risk control measures when lifting occurs alongside the other high-risk activities shall be evaluated.

#### 6.2 Risk Assessment

All activities involving suspended loads and lifting shall be subject to risk assessment to identify the hazards associated with handling such loads.

#### 6.3 Lift Plan

A specific lift plan for non-routine and critical lifts (Category 2 & 3) shall be made and based on the job specific risk assessments and consider the elements as specified in [Annex A](#) as a minimum.

#### 6.4 Prior to Load Transfer

Prior to commencing the load transfer, it shall be ensured:

- That lifting equipment is visually and operationally checked immediately before use.
- That the Person-in-Charge -non-routine lift- or qualified lifting expert – complex lift- have provided a lift plan for the lift.
- That the lift is undertaken in accordance with the lift plan and stop operations when there is a deviation from the lift plan.
- That the lift is in compliance with safety regulations, industry standards, and company policies.

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- The lift plan shall be communicated in detail with all parties involved, including the crane operator.
- That all crush zones are identified and that no person is permitted inside a crush zone during any part of the lifting, lowering or shifting operation.
- The safe positioning of personnel working near a load (for example, such as in a vessel cargo hold).
- The removal of any obstruction to the path of equipment and the safe shifting of a load (E.g. sufficient clearance from overhead power cables, -obstructions).
- That the load is correctly slung, in balance, secure and any load swing is minimized before lifting from or lowering into cargo spaces i.e. crane/hook attachment is set in plumb with the center of gravity of the load to prevent swing when load is lifted.
- That crane / equipment operators are directed where their visibility is impaired, or ship's gear is being used.
- That any loose items are removed before transferring the load, for example items left on hatch lids or on top of loads ready for transport.
- Ensure that the ground has sufficient load bearing capacity to support the crane and the load during lifting operations.
- That appropriate personal protective equipment (PPE) is used.
- That, if there is any doubt about the safety of a load – DO NOT LIFT.
- A nominated authorized person performs a thorough check of the lifting gear and the lifting attachments after use.

### **6.5 Terminal / Site Procedures**

Terminals/Sites shall establish defined procedures for load handling operations that specify, as a minimum, the following requirements:

- Lifting equipment shall be fit for its intended purpose and operating conditions and shall be designed to a recognized standard.
- Lifting equipment shall be fitted with appropriate safety devices, and any safety devices installed on lifting equipment shall be operational and not be in an over-ride condition. Safety devices shall not be modified from original OEM specifications; manual alteration of design or functionality is not allowed. This ensures that all safety devices function as intended and meet established industry standards.

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- Safe operating procedures for the different types of cargoes handled such as containers, tubular/cylindrical loads, bulk and bagged cargoes or irregularly shaped loads such as, but not limited to e.g., construction materials on a site shall be available.
- Loads shall not be carried or lifted over personnel or vehicles, and personnel shall never walk or drive under any suspended load.
- Loads shall not be carried or lifted over habited buildings; these shall be evacuated until the lift has taken place.
- Direct personnel contact with moving or suspended loads (to guide them into position etc.) shall be prohibited. For example, use tag lines or 'shepherd's hooks' in operations requiring the positioning of the suspended load.
- Personnel shall not be located where there is a risk of crush injury from a moving load.
- The load shall never exceed the SWL or WLL of the lifting gear/equipment and lifting attachments in use.
- All personnel involved in the lifting operation have their individual responsibilities clearly defined and communicated.
- Operators of lifting equipment shall not engage in activities that will distract them from their duties. Mobile phones or personal entertainment devices of any kind shall never be used when handling loads.
- Rigging operations shall be executed by competent, trained and authorized personnel.
- Weather limitations from manufacturers, local legislative weather limitations or APM Terminals weather limitations should be known, communicated and followed.
- All sites shall have a Permit to Work system in place to ensure personnel or on-site contractors qualify to perform a lift and comply to training and competence requirements.
- Defined lines of communication and responsibility shall be established prior to proceeding with a lift that includes:
  - A qualified person being appointed as the 'Person-in-Charge' for the lift handling operations.
  - A clear means of visually identifying the 'Person-in-Charge'.
  - The 'Person-in-Charge' being the only person signaling and directing crane operations at any time.

This DOES NOT apply in the event of an EMERGENCY, when any person can signal the operator to stop.

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- The 'Person-in-Charge' should position themselves so that a clear line of sight is always maintained with the equipment operator, the load itself and any other personnel assisting with the lift or within the work area. If this is not achievable, a so-called blind lift, then an alternative safe method of work shall be provided and radios must be used.
- The equipment operators are to be instructed not to move any loads until such time as the 'Person-in-Charge' has effectively communicated that all persons have been removed from any crush zones and it is safe to move the load.
- A defined process for handing over responsibility for issuing instructions from one person to another i.e. the 'Person-in-Charge' to a 'new Person-in-Charge'.

### **6.6 Specific Requirements for Lifting of Personnel**

- Lifting of personnel shall be avoided unless the risk has been demonstrated as being as low as possible and reasonably practicable with specifically designed, certified and clearly marked as 'suitable for personnel lifting' special purpose lifted equipment, such as e.g., a man cage or a work basket.
- Lifting of personnel shall only be according to a specific personnel lift plan.
- The crane must always be operated in a low-speed regime when lifting personnel.
- Lifted personnel shall be properly secured with approved harnesses / lanyards unless written procedures and risk assessment require otherwise.
- Equipment involved in lifting of personnel are certified for man-riding operations.
- Manlift/mobile access platforms are the preferred method for lifting people.
- The only circumstance to deviate from these requirements is in the case of emergencies.

### **6.7 Specific Requirements for internal / External Trucks in RTG Stacks**

- Any truck waiting to be handled shall maintain a minimum waiting distance of one 40' container away from the stack until the RTG spreader is waiting in Row 1 and only then proceed.

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### 7. References

| Reference Material                                                     |                      |
|------------------------------------------------------------------------|----------------------|
| ILO – Safety and Health in Construction Recommendation, 1988 (No. 175) | <a href="#">link</a> |
| ILO – Register of Lifting Appliances and Items of Loose Gear, 1997     | <a href="#">link</a> |
| HSE – Planning and organising lifting operations                       | <a href="#">link</a> |
| HSE – Safe use of lifting equipment, 2014                              | <a href="#">link</a> |
| HSE – Thorough examination of lifting equipment, 2008                  | <a href="#">link</a> |
| HSE – Lifting equipment at work, 2013                                  | <a href="#">link</a> |
| APMT-HSSE-REQ-012 Permit to Work                                       | <a href="#">link</a> |
| STAT Campaign on Dropped Objects                                       | <a href="#">link</a> |

### 8. Document Control

| Document Control Details |           |                                                                      |                                                           |                     |                                                         |
|--------------------------|-----------|----------------------------------------------------------------------|-----------------------------------------------------------|---------------------|---------------------------------------------------------|
| Date Issued              | Version # | Standard Owner<br>(Name & Role)                                      | Reason for<br>Change                                      | Review By<br>(Name) | Approved By<br>(Name & Role)                            |
| 01-Mar-2021              | 1.0       | M. Anderson                                                          | New standard                                              | -                   | -                                                       |
| 06-Dec-2021              | 2.0       | COE W&D                                                              | Adjustment to<br>new template                             | -                   | -                                                       |
| 02-Jan-2022              | 2.1       | COE W&D                                                              | Adjustment<br>based on Head<br>of HSE review              | -                   | -                                                       |
| 09-Oct-2022              | 2.2       | COE W&D                                                              | Removal of<br>guidance<br>section                         | -                   | -                                                       |
| 07-Feb-2023              | 2.3       | COE W&D                                                              | Removal of<br>Roles &<br>Responsibilities                 | -                   | -                                                       |
| 21-June-2023             | 2.5       | COE W&D                                                              | Change of title<br>requirement to<br>standard             | -                   | -                                                       |
| 10-Jul-2025              | 3.0       | Andreas M. van<br>der Wurff<br>(Sr. HSE Business<br>Partner AFR&EUR) | Revision of<br>Fatal 5 content<br>and new ATS<br>template | Global HSE<br>BPs   | Aslak Ross (Head<br>of Safety &<br>Resilience,<br>APMT) |

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|                                                                                                |                                                                                                                    |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Standard Owner:</b><br><br>Andreas M. van der Wurff<br>Senior HSE Business Partner: AFR&EUR | <b>Owner Signature:</b><br><br><div>Signed by:<br/><b>Andreas Maria van der Wurff</b><br/>813CD82B91484AD...</div> |
| <b>Approved By:</b><br><br>Aslak Ross<br>Head of Safety & Resilience                           | <b>Approver Signature:</b><br><br><div>Signed by:<br/><b>Aslak Ross</b><br/>2DEB5268E2A84AF...</div>               |

### 9. Annexes

#### 9.1 Annex A: LIFT PLAN

A specific lift plan for **non-routine** (category 2) and **critical lifts** (category 3) shall be made based on the job specific risk assessments and consider the elements below as a minimum:

- **Cargo / lift scope of work**
  - Cargo type, weight and Center of Gravity
  - Suitability of the lifting points, pad eyes and brackets
  - Sharp edges on the lift
  - Lift height and radius
  - Rigging method, sling angles and load distribution
  - Dynamic movements
  - Lifting people
- **Lifting equipment specifications**
  - Lifting equipment suitability, selection and integrity
  - Bearing capacity
  - Overloading
  - Overturning
  - Derating of crane capacity
  - Type and configuration of lifting accessories, such as e.g., slings, shackles, hooks, spreaders etc.
- **Location**
  - Lifting location
  - Exclusion zone, its extent and access control

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- Overhead structures
- Proximity hazards
- Ground stability
- **Lift Procedures**
  - Pre-use checks
  - Step-by-step instructions, including equipment positioning
  - Communication protocol between involved parties
  - Deviation from lift plan protocol
  - Safety protocol, emergency and rescue plans
- **Personnel Roles**
  - Training and competency of involved personnel
- **Rigging sketch or diagram**
  - Rigging sketch or diagram of the lift to be created
- **General**
  - Weather conditions
  - Visibility
  - Permits



# WORKING AT HEIGHT

## Fatal 5 – Work at Height

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APM Terminals shall protect employees and contractors by controlling the risks associated with working at height.

### 1. Purpose

APM Terminals is committed to protecting employees and contractors by systematically controlling the risks associated with working at height. We shall comply with all local legislative requirements and, where necessary, go beyond them to uphold the highest safety standards.

Working at height presents a significant risk of fatal and serious incidents. Effective compliance with this standard will be demonstrated by:

1. Eliminating or reducing the need for working at height wherever practicable.
2. Implementing safe systems of work with appropriate fall prevention and protection controls.
3. Recognizing and managing risks across various cargo configurations and operational contexts.
4. Ensuring hazards are identified, assessed, and effectively controlled.

### 2. Scope

**What:** This Standard defines the minimum requirements for managing all activities involving work at height (WAH) at APM Terminals. It covers the planning, execution, and control of tasks where there is a risk of falling from one level to another, including but not limited to working platforms, use of ladders, scaffolds, mobile elevating work platforms (MEWPs), and fall protection systems.

**Who:** This Standard is mandatory for APMT owned and/or managed/controlled Terminals and Projects. Where APMT does not own and/or manage/control Terminals or Projects, every effort should be made for the Joint Venture to adopt the highest Standard.

**When:** This Standard applies at all stages of the terminal lifecycle:

1. **Operational phases** (for execution, maintenance, and inspection tasks),
2. **Design, Construction and Commissioning phases** of new projects (to embed WAH risk elimination and control in layout and equipment decisions),
3. **Project planning and investment proposals** for new or upgraded facilities, to ensure integration of safe access systems and design for zero work at height wherever possible.

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### 3. Key Definition/Term

- **Work at Height (WAH):** Work at height refers to any activity where a person could fall from one level to another and sustain injury if adequate preventive measures are not in place. This includes the use of ladders, scaffolds, MEWPs, rooftops, platforms, near fragile surfaces, around surface openings.
- **Fall Prevention:** Fall prevention refers to methods or systems that stop a person from reaching a position where a fall could occur. This includes physical barriers such as guardrails, fixed edge protection, or travel restraint systems.
- **Fall Protection System:** A fall protection system is a set of measures and equipment designed to stop a fall in progress and minimize injury. It includes both personal systems (such as full-body harnesses, lanyards, anchor points, and fall arresters) and collective systems (such as safety nets or guardrails).
- **Collective Control Measures:** Collective control measures are passive fall protection solutions that protect all workers exposed to a fall hazard without requiring individual action. Examples include fixed guardrails, barriers, or covers over openings.
- **MEWP (Mobile Elevating Work Platform):** A MEWP is a powered access machine used to lift personnel to elevated work positions. It includes equipment such as scissor lifts and boom lifts (also known as cherry pickers).
- **Anchor Point:** An anchor point is a fixed, certified, and secure attachment location used to connect fall protection equipment such as lifelines or lanyards to arrest a fall safely.
- **Lanyard:** A lanyard is a flexible line, either shock-absorbing or retractable, that connects a full-body harness to an anchor point within a fall protection system.
- **Safe System of Work (SSOW):** A safe system of work is a formalized method for completing a task safely. It is developed through hazard identification and risk assessment and outlines the necessary steps, controls, and responsibilities to manage risk effectively.
- **Permit to Work (PTW):** A permit to work is a formal authorization system that ensures high-risk activities, such as work at height, are properly planned, assessed, and controlled before work begins. It confirms that all safety measures are in place and that the task is approved by a competent authority.

### 4. Responsibilities

This section outlines who is involved in implementing and maintaining the Work at Height standard. The table below uses a RACI format to clarify who is Responsible (does the work), Accountable (owns the outcome), Consulted (provides input), and Informed (kept updated). This ensures clear ownership and smooth execution across terminals and Projects.

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Table 1 - RACI of Roles & Responsibilities

| Action/Task                                             | Responsible                                                                                       | Accountable                                                                                             | Informed                                                                                                | Consulted                                                                                              |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Apply the standard in the terminal (ensuring adherence) | <ul style="list-style-type: none"> <li>Work/Task Supervisor</li> <li>Work/Task Manager</li> </ul> | <ul style="list-style-type: none"> <li>Terminal MD/COO</li> </ul>                                       | <ul style="list-style-type: none"> <li>OPS Team</li> <li>AM Team</li> </ul>                             | <ul style="list-style-type: none"> <li>Job Experts</li> <li>WAH Trainers</li> <li>HSSE Team</li> </ul> |
| Approve deviations to the standard                      | <ul style="list-style-type: none"> <li>Work/Task Supervisor</li> </ul>                            | <ul style="list-style-type: none"> <li>Head of OPS</li> <li>Head of AM</li> </ul>                       | <ul style="list-style-type: none"> <li>Terminal MD/COO</li> </ul>                                       | <ul style="list-style-type: none"> <li>HSSE Team</li> </ul>                                            |
| Develop WAH procedures and SOPs                         | <ul style="list-style-type: none"> <li>Work/Task Supervisor</li> </ul>                            | <ul style="list-style-type: none"> <li>Head of OPS</li> <li>Head of AM</li> <li>Head of HSSE</li> </ul> | <ul style="list-style-type: none"> <li>Terminal MD/COO</li> </ul>                                       | <ul style="list-style-type: none"> <li>Job Experts</li> <li>WAH Trainers</li> <li>HSSE Team</li> </ul> |
| Conduct risk assessments for WAH tasks                  | <ul style="list-style-type: none"> <li>Work/Task Supervisor</li> </ul>                            | <ul style="list-style-type: none"> <li>Work/Task Manager</li> </ul>                                     | <ul style="list-style-type: none"> <li>Head of OPS</li> <li>Head of AM</li> <li>Head of HSSE</li> </ul> | <ul style="list-style-type: none"> <li>HSSE Team</li> </ul>                                            |
| Approve WAH methods and control measures                | <ul style="list-style-type: none"> <li>Work/Task Manager</li> </ul>                               | <ul style="list-style-type: none"> <li>Head of OPS</li> <li>Head of AM</li> </ul>                       | <ul style="list-style-type: none"> <li>Terminal MD/COO</li> <li>Head of HSSE</li> </ul>                 | <ul style="list-style-type: none"> <li>HSSE Team</li> </ul>                                            |
| Deliver WAH training and competency checks              | <ul style="list-style-type: none"> <li>Certified and Qualified WAH Trainer</li> </ul>             | <ul style="list-style-type: none"> <li>Head of OPS</li> <li>Head of AM</li> <li>Head of HSSE</li> </ul> | <ul style="list-style-type: none"> <li>Head of HSSE</li> </ul>                                          | <ul style="list-style-type: none"> <li>HSSE Team</li> </ul>                                            |
| Monitor compliance and conduct inspections              | <ul style="list-style-type: none"> <li>Work/Task Supervisor</li> </ul>                            | <ul style="list-style-type: none"> <li>Work/Task Manager</li> </ul>                                     | <ul style="list-style-type: none"> <li>Head of OPS</li> <li>Head of AM</li> <li>Head of HSSE</li> </ul> | <ul style="list-style-type: none"> <li>Job Experts</li> <li>WAH Trainers</li> <li>HSSE Team</li> </ul> |
| Review and update WAH controls periodically             | <ul style="list-style-type: none"> <li>Work/Task Supervisor</li> </ul>                            | <ul style="list-style-type: none"> <li>Work/Task Manager</li> </ul>                                     | <ul style="list-style-type: none"> <li>Head of OPS</li> <li>Head of AM</li> <li>Head of HSSE</li> </ul> | <ul style="list-style-type: none"> <li>Job Experts</li> <li>WAH Trainers</li> <li>HSSE Team</li> </ul> |
| Ensure contractor compliance with WAH rules             | <ul style="list-style-type: none"> <li>Work/Task Supervisor</li> </ul>                            | <ul style="list-style-type: none"> <li>Work/Task Manager</li> </ul>                                     | <ul style="list-style-type: none"> <li>Head of OPS</li> <li>Head of AM</li> <li>Head of HSSE</li> </ul> | <ul style="list-style-type: none"> <li>Job Experts</li> <li>WAH Trainers</li> <li>HSSE Team</li> </ul> |

- All **Regional Managing Directors (RMD)** and **Head of Project Execution (PE)** shall set expectations and assure that each site in their geographical scope of responsibility has the resources needed to successfully implement and maintain controls provided in this document.
- **Terminal Managing Directors and Project Directors** shall ensure that controls required in this document are implemented in their operations and escalate issues impacting the implementation and maintenance of controls to their RMD in a timely manner.

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- **COO/ Head of Operation** shall ensure that the controls required in this document are implemented in their operation(s) and that the application and effectiveness of those controls is adequately supervised to ensure they are respected and adhered to.
- **Supervisors and Team leaders** shall ensure that the controls provided in this document and associated risks are communicated with their team(s) to ensure awareness and ensure that people are adequately trained to work with the control measures.
- **Employees, contractors, third party and visitors** shall adhere to control measures communicated to them, report any dysfunctional or ineffective controls to their manager as soon as possible and share their ideas on improving the controls involved in their work.
- **Terminal and Project Heads of HSSE** shall establish and execute an implementation plan together with their Global HSE BP and Terminal MD/Project Director to ensure that all controls are implemented in their operation(s).
- The **Global Head of S&R** shall maintain these Global Standards and ensure assurance is obtained on its implementation and effectiveness in APM Terminals.
- **HSE Business Partners** shall establish and execute an implementation plan to ensure that the responsibilities provided in this document are allocated and controls required are implemented in all operations and sites.

### 5. Process

#### 5.1 *Planning & Considerations*

Before undertaking working at height activities, the following items are to be considered:

- Do a job safety analysis before commencing work.
- Locate and seek the advice of a competent work at height specialist.
- Eliminate or minimize the need for work to be done at height.
- Use of a fit for purpose safe system of work comprising appropriate fall prevention and protection measures.
- Fall arrest equipment shall be certified and kept in good condition, in designated fall arrest equipment stores, which is kept locked at all times.
- All fall arrest equipment shall be listed in the register.
- Ladders are for access and occasional light duty only and are not supposed to be used for routine, heavy duty work or to carry objects (e.g. Tools).
- Only persons trained in the fitting and use of fall arrest equipment shall be allowed to conduct work where the use of the equipment is required.
- Radio communication shall be provided where necessary.

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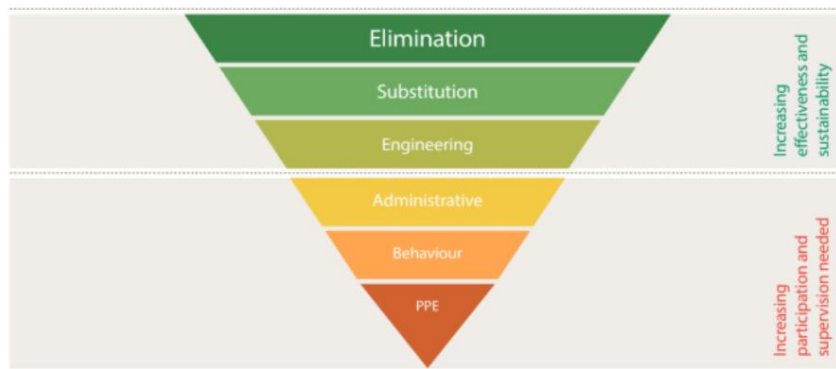


- Fall arrest equipment shall be inspected prior and after use in addition to periodic inspections.
- Establishment of an exclusion zone and prevention of dropped objects.
- Consider weather forecast and defined limitations.
- Ensure Emergency Rescue Plan is in place with readiness capabilities.

### 5.2 Controls Approach

Figure 1 – Hierarchy of Control

Always apply the highest level of control proportionate with the risk level – lower value controls may be used in the interim until long-term controls are implemented

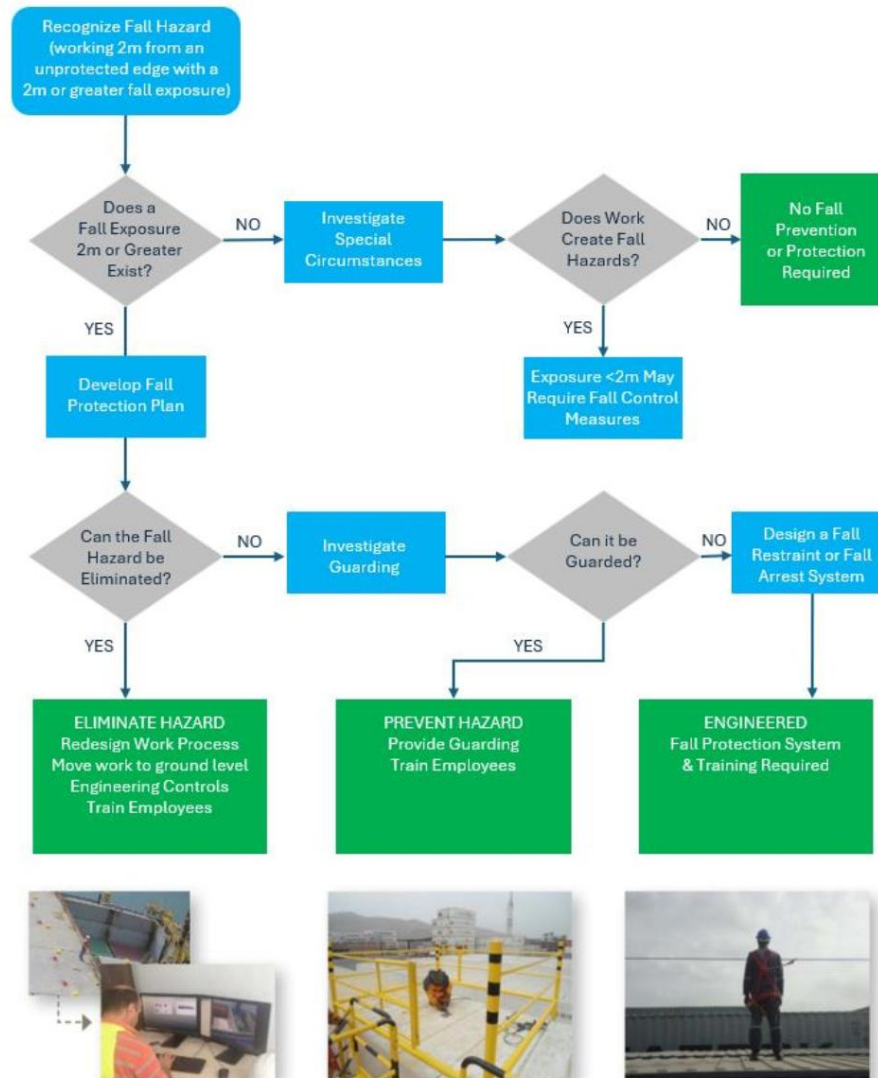


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Figure 2 – Working at Heights Decision Tree



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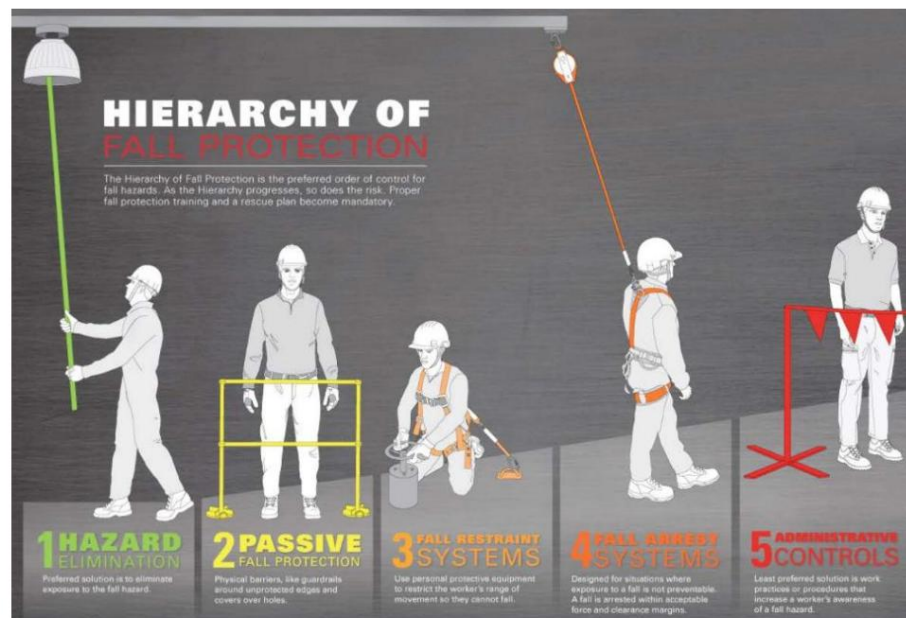
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Figure 3 – Hierarchy of Fall Protection



### 5.3 Deviations

There will be circumstances where someone cannot conform to the process or requirements outlined in the standard or were doing so is undesirable or unachievable. A formal process must be in place locally to assess and approve deviations, as outlined in the Management of Change Standard.

## 6. Requirements

### 6.1 EN (European Norm) Standards

Working at height equipment shall be certified to EN Standards (or equivalent) as outlined in the table below.

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Table 2 – EN Standards

| EN Standard # | Description                                               |
|---------------|-----------------------------------------------------------|
| EN 12841/C    | Rope access systems: back-up devices                      |
| EN 341        | Descenders                                                |
| EN 353-1      | Guided Type Fall Arresters Rigid Anchorage Line and Rails |
| EN 353-2      | Guided Type Fall Arresters Flexible Anchorage Line        |
| EN 354        | Lanyards                                                  |
| EN 355        | Shock Absorbers                                           |
| EN 358        | Work Positioning Systems                                  |
| EN 360        | Retractable Type Fall Arresters                           |
| EN 361        | Full Body Harness                                         |
| EN 62         | Connectors                                                |
| EN 795(b)     | Anchorage Devices – Class B                               |
| EN 813        | Sit Harness                                               |
| EN 363        | Fall Arrest Systems                                       |

### 6.2 Systems

#### 6.2.1 Risk Assessment

Sites shall perform documented risk assessments to identify hazards associated with working at height. These risk assessments must consider both the risks to those working at height, and to persons working in the surrounding environment who may be struck by falling objects (i.e. twist locks, lashing bars, tools etc).

Eliminating the need for work at height is the most effective risk control and must always be considered first, including through engineering controls and technical solutions.

#### 6.2.2 Training

Training and assessment of personnel required to work at heights shall include, but not be limited to:

- Identification of the hazards associated with working at height, including other hazards present whilst carrying out work at height, for example, electrical hazards or those created by rain and high winds.



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- Identification and use of fall prevention and protection methods and equipment including: pre-use inspections; selection of suitable anchor points; what to do if a suitable anchor point is not available; use of harnesses, and the fitting of self-retracting lines.
- Portable ladder safety: in particular, maintenance, tie off or person holding the ladder and 'three points of contact' during any ascent or descent.
- Emergency response and rescue procedures, including rescue of a suspended person connected to fall arrest equipment.
- Appropriate methods to secure tools and objects to prevent them from falling.
- Situational awareness and maintaining safety for others nearby.

### 6.2.3 Procedures

Site procedures shall be developed to ensure selection of safe systems of work:

- Where fall prevention measures (safety cages, elevated work platforms or scaffolding) take precedence over systems relying on fall protection (harnesses, self-retracting lanyards).
- Where fall prevention and protection equipment are designed for the work environment and adequate for the task.
- With a safe method of access.
- That complies with local legislative requirements.
- Are suitable for the physical attributes of potential users.
- Adequate means of communication
- Adequate level of supervision

### 6.2.4 Other Systems

Systems of work incorporating the use of self-retracting lines, full body harnesses, vertical and horizontal static lines and the use of anchor points shall be established and implemented when fall prevention measures cannot be used. These systems shall incorporate requirements ensuring:

- In works of lashing and unlashings containers at the vessel's wing, where no guard-rail is available, wearing a harness with double lanyard is compulsory, and it should be attached to a structure of the vessel itself or to a container door.
- Works on the edge of open hatches will only be performed after a ship's guard-rail is installed. If it is not possible to install the guard-rail, workers who must go close to the edge of open hatches should carry out the activities wearing a safety harness attached to structures of the vessel or other suitable anchor point.
- Maintaining connection with a fixed point or static line at all times.
- Use of dual lanyard arrangements whilst detaching and re-attaching lanyards at height.

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- Limiting any free fall to 2 meters or less.
- Consideration of the pendulum effect (the arc around an attachment point that a person would swing if they fell).
- That the fall arrest system activates before the falling person collides with a surface.
- Anchor points shall be solid structures.
- The use of a buddy system.
- Persons who are trained to use work at height equipment shall be trained to identify adequate anchor points.

Other applicable system requirements:

- Ship's gangways must be fitted with nets and secured and landed on the quay side or quayside platform.
- Where activities involving working at heights are being carried out, except for vessels under operation, where people working or walking and there is potential for materials, tools or equipment to fall, then the area shall be isolated.
- Where not covered by a safe operating procedure, a permit to work system should be used to control movement and prevent people and mobile equipment coming into the vicinity of an unprotected edge.
- Work at height register shall be maintained.
- Fitness for work program should be implemented to ensure personnel can perform their tasks safely. The program should aim to minimize impacts from:
  - Environmental conditions such as heat
  - Fasting
  - Fatigue
  - Medication and other medical conditions such as colour blindness and epilepsy
  - Drugs and alcohol

### 6.3 Equipment

#### 6.3.1 Safety Cages

Safety Cages operated by crane spreader shall be used as the means of control for container top working onboard. Other means of control shall be assessed for general cargo or ship cranes operations.

When using Safety Cages the following requirements shall apply:

- A full body harness shall be worn AND be always attached while working.
- A secondary attachment point shall be used to attach the cage to the spreader.

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- Safety cages always shall be connected to the spreader or lifting attachment and under the crane drivers controls or Container Handling Equipment (CHE) operators' control.
- When the work cage is attached, the crane speed should be reduced to a maximum of 25%.

### 6.3.2 Platform/Scissor Lift

When using an elevated work platform/scissor lift:

- A full body harness shall be worn and attached to an anchor point at all times.
- Personnel using the platform must be certified in its use (as required by local legislation). If there are no legal requirements, they must be assessed as competent by APM Terminals.
- Platforms shall be brought back to safe height before moving, to prevent crushing and overturning, as per Original Equipment Manufacturer (OEM) guidelines.
- Fencing, guardrails, scaffolding, MEWPs and staging also protect against falls.
- It is strictly forbidden to step out of a suspended platform.

### 6.3.3 Scaffolding

When scaffolding is used, the following shall apply:

- Scaffolds are erected and tagged by a competent person; it is to be considered a temporary solution.
- Scaffold are dimensioned and built to support safely the workloads it will receive.
- Scaffolds are secured and used on even surface.
- Scaffolds that are higher than four times the smallest width of its base are to be anchored to the building or to a strong enough structure or should be cable-stayed.
- Scaffolds have a guard-rail system and toe-board.
- Mobile scaffolds can only be used on flat surfaces and with their casters locked.
- Mobile scaffolds are to be wedged and anchored while in use to avoid their displacement and collapse.
- Mobile scaffolds are not allowed to be moved while there are persons or materials on the work platform.
- The scaffolds have their access ladder coupled to its structure.
- Scaffolds have all access points leading to the platform from inside.
- Safety harness with double lanyard is worn when assembling, disassembling and working on the scaffolds.
- Scaffolds should be in perfect use condition and without corrosion and a cracked or distorted structure.

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- Scaffolds are assembled far from electrical installations and away from where they can be reached by machines or equipment.
- The use of ladders or other means on the scaffold work platform to reach higher points is strictly forbidden.
- Scaffolds should be checked after adverse weather conditions.

### 6.3.4 Ladders

When using a ladder the following shall apply:

- Be on stable level ground.
- Have nonslip feet.
- Working height shall be less than 7.5m.
- Standing time per scope < 4 hours for ladder, and < 6 hours for a mobile stair.
- Be secured or supported by another colleague.
- Must be placed at a safe angle – 75° to the horizontal.
- Ladder extends 1 meter beyond the landing place.
- Be included in the maintenance schedule and inspected prior to use.

### 6.3.5 Crane Baskets

When using crane baskets, the following shall apply:

- A full body harness shall be worn AND be always attached while working.
- The crane speed should be reduced to minimum speed.
- Have a secondary attachment.
- Must not be used during bad weather.
- Defined anchor points, lifting anchor points must be certified.
- When slinging with a multi-legged sling it must be assumed that only two of the sling legs are taking the load. Additional legs do not increase the Safe Working Load (SWL) of the sling assembly.

### 6.3.6 Fall Overboard Protection

- Life rings with heaving line must be available and ready for use on quaysides/jetties with staff trained in their use.
- Life vest/Personal Floating Device (PFD) are required and in use for all waterside exposed work areas.

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### 6.3.7 Fall Prevention & Protection Equipment

Fall prevention and protection equipment shall be:

- Maintained in accordance with manufacturer's recommendations.
- Stored correctly to prevent damage.
- Tested and tagged every six months (including anchor points), or more frequently if required by local legislation.
- Visually inspected before and after use by a competent person.
- Fall protection equipment shall be inspected and assessed to record the equipment condition and then destroyed following a fall or where there is evidence of excessive wear or mechanical malfunction.
- Records of inspection, maintenance and testing of all fall prevention and protection equipment shall be maintained.
- Harnesses are the only acceptable form of equipment to be worn. Body belts are prohibited.

### 6.4 People

Key requirements for people:

- Employees or contractors working on behalf of APM Terminals shall use fall prevention or protection measures when they are:
  - Working within 2 meters of an unprotected edge which exposes them to a fall of 2 meters or more; or
  - Required to work on or near fragile surfaces, where they may fall more than 2 meters through the structure.
- The competency of persons required to use safety cages; harnesses, elevated work platforms, and all related Working at Height activities shall be regularly assessed (including contractors who perform regular work, as well as other labour personnel engaged on-site).
- Persons required to supervise work at height activities shall have a basic understanding of the inherent hazards and mitigations.
- When engaging contractors to undertake irregular tasks (for example, construction or crane overhaul work), an APM Terminals representative shall review the evidence of their competence to work safely at heights.

### 6.5 Self-Assessment

Site HSE Managers shall complete an annual self-assessment of conformance to this Global Standard, gaps identified must be shared with Terminal MD/COO and prioritize action plan for compliance.

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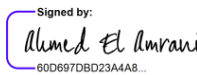
### 7. References

| Reference Material                                                                              |
|-------------------------------------------------------------------------------------------------|
| Visual Control Points – <a href="#">Working at Height</a>                                       |
| ILO – Working at Height   2021 – <a href="#">External Webpage</a>                               |
| ILO – Workplace safety and health act chapter 354A   2013 – <a href="#">National Regulation</a> |
| HSE – Working at height: a brief guide   2014 – <a href="#">External Publication</a>            |
| HSE – Working at Height General – <a href="#">External Webpage</a>                              |
| OSH Wiki – Working at Height   2020 – <a href="#">External Webpage</a>                          |
| HAS – Working at Height   2021 – <a href="#">External Webpage</a>                               |

Refer to [Annexes](#) at end of document for best practices and key recommendations related to PPE and other working at height topics.

### 8. Document Control

| Document Control Details |           |                                         |                                           |                                                                          |                                           |
|--------------------------|-----------|-----------------------------------------|-------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Date Issued              | Version # | Standard Owner                          | Reason for Change                         | Review By                                                                | Approved By                               |
| 10-01-2015               | 1.0       |                                         | Creation                                  |                                                                          |                                           |
| 01-12-2021               | 2.0       |                                         | Updated for both APMT & APMM requirements |                                                                          |                                           |
| 9-Jul-2025               | 3.0       | Ahmed El Amrani<br>HSE Business Partner | Review and Update                         | HSE Business Partners<br>Terminals Job Experts<br>Terminals WAH Trainers | Aslak Ross<br>Head of Safety & Resilience |

|                                                                                 |                                                                                                                                                                            |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard Owner:</b><br><br>Ahmed El Amrani<br>HSE Business Partner ASIA & ME | <b>Owner Signature:</b><br><br><br>Signed by:<br>Ahmed El Amrani<br>60D697DBD23A4A8... |
| <b>Approved By:</b><br><br>Aslak Ross<br>Head of Safety & Resilience            | <b>Approver Signature:</b><br><br><br>Signed by:<br>Aslak Ross<br>2DEB5268E2A84AF...    |

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### 9. Annexes

#### 9.1 Annex A: Collective Protective Equipment (CPE)



Fall-Proof Covers can be used adjacent to walkways, or on flat or pitched fragile roofs; to prevent the worker falling through the fragile roof material.



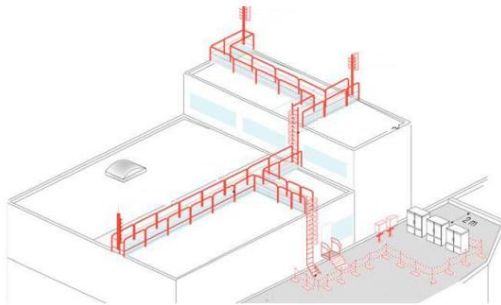
This system can be used as collective protection to create a safe route or working area by restricting the worker to a minimum of 2m from the fall hazard.



Safety bars used as protection against someone walking on open holes and ladders.



Guard rails.



Example of combining different types of CPE

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### 9.2 Annex B: Best Practices from Terminal Operations



Container M&R - External



Container Top Repair M&R – Callao



SC Parking Rack – Gothenburg



Rooftop repair – Aqaba



Gate inspections - External



Truck Tarping Frame - Callao



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Fixed Scaffold



Mobile Scaffold



Scissor lift - MVII



Movable ladder - External



Flexible light weight Mobile Ladder Platform, used for OOGs, Special Handling preparations and container top check/repair – TM2

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Pico-lift Manual Lift up to 5m – TM2



Tarpaulin platform - External



Spreader maintenance platform - GTI



Tarpaulin platform - Pipavav



Spreader maintenance platform - External



Tarpaulin platform - External

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### 9.3 Annex C: Personal protective equipment (PPE)



**Body Harness:** Straps which may be secured on the worker in a manner that will distribute the fall arrest forces over the thighs, pelvis, waist, chest and shoulders.



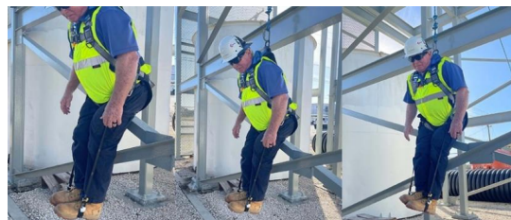
**Lanyards:** A flexible strap that has a connector at each end for connecting the body harness to an anchorage point. Examples: A shock absorbing lanyard, self-retracting lanyard.



**Connectors:** A device, which is used to connect parts of the personal fall arrest system. All connectors shall have locking features to avoid unclipping.



**Anchorage:** An engineered and designed point of attachment for lifelines, lanyards or deceleration devices. Shall be able to sustain a minimum pull force (Refer to EN 795 or equivalent).



**Suspension Trauma Relief Straps** allow a fallen person to stand in foot loops to relieve leg strap pressure, reducing the risk of suspension trauma while awaiting rescue. They are compact, easy-to-deploy devices that help maintain circulation and minimize injury after a fall.

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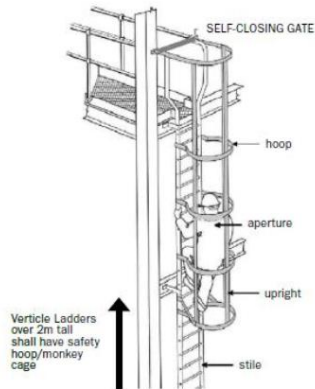
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### 9.4 Annex D: Vertical Ladders Safety



Vertical Ladder Safety Components



Twin-Leg lanyard



Vertical Ladder safety hoop / monkey cage



Vertical safety lane/mounted fall arrest system



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Ladders with a folding gate to avoid fall from the platform



Ladder should have rest platforms at a minimum of every 9 meters (Check local regulation)



Physical Restricted Access



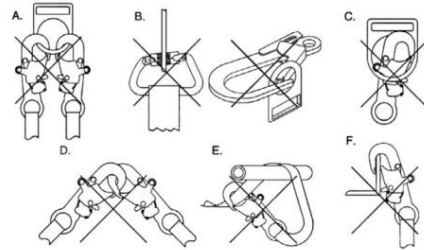
RTG Vertical Ladder Access Restriction Poke-yoke, when open Sensor is activated and RTG Gantry cannot be activated - PPV

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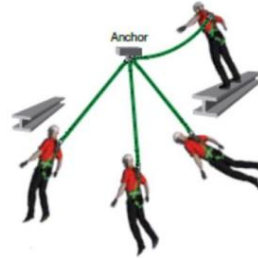
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### 9.5 Annex E: Work at Height Specific Aspects to Consider



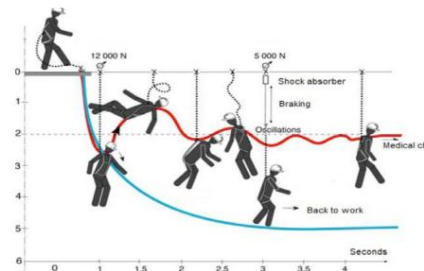
Examples of improper connections



Be aware of potential pendulum effect in case of a fall



Rescue kits readily available for quick and safe recovering



Shock absorbing lanyards used as part of a personal fall arrest system. Consideration shall be given to the distance to the ground.

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### 9.6 Annex F: Work At Height No Go



No Bamboo ladders



No Bamboo scaffolding



No Rope ladders



No Chain ladders



No ladders > 7.3 m



No Wood Ladders  
Don't carry objects while climbing a ladder

# STORED ENERGY

## Fatal 5 – Stored Energy

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APM Terminals shall control the risks arising from the uncontrolled release of stored hazardous energy.

### 1. Purpose

The purpose of this Standard is to provide critical controls to prevent injuries, fatalities and ill-health from hazardous energies, uncontrolled release from Stored Energy and Pressurized Systems. The intent is to manage the risk to workers, assets and the environment. The aim is to ensure that all machinery and equipment is isolated, locked out and made safe (in what is referred to as a zero-energy-state) prior to any access, work or repair being carried out, in order to protect the health and safety of workers.

### 2. Scope

This Standard defines the requirements for performing Isolation and Lockout Tagout of machinery (moving and stationary) and equipment, electrical equipment and powerlines, vessels, piping, and pressure relief systems from sources of hazardous energy. The requirements of this standard are also relevant to non-intrusive isolation of hazardous energy that involves breaking the containment and controlling long-term isolations. This Standard prescribes the minimum requirements to which isolation and Lockout Tagout isolation procedures must comply during installation, inspection, servicing, maintenance, cleaning, repair, or while equipment is in a state of disrepair or disassembly.

Applicable machinery or equipment includes:

- Machinery or equipment that is operated by an energy source such as air, steam, water, hydraulics, electricity, mechanical, etc., or
- Machinery or equipment that may have stored energy such as that in springs, elevated machine members, rotating flywheels, capacitors, inductors, batteries, etc.

This standard does not apply to work on plug connected and battery-operated hand tools.

This Standard is mandatory for APMT owned and/or managed/controlled Terminals and Projects. Where APMT does not own and/or manage/control Terminals or Projects, every effort should be made for the Joint Venture to adopt the highest Standard.



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### 3. Key Definition/Term

- **Authorized Person:** person authorized to perform energy source isolation, implement Lockout Tagout on equipment (to perform servicing or maintenance), verify energy isolation and implement actions to release Lockout Tagout.
- **Isolation (of Hazardous Energy):** refers to the process of systematically shutting down, blocking, securing and isolating machinery or equipment from its energy source to prevent accidental startup, unexpected energization of equipment or release of residual and/or stored energy during installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. This practice is crucial for ensuring the safety of workers during maintenance or servicing activities.
- **Lockout:** Lockout is the placement of a lockout device on energy isolation devices to ensure the responsible employee maintains control over any hazardous energy and the equipment being controlled cannot be operated until the lockout device is removed. A lockout device is a mechanical means of locking that uses an individually keyed lock to secure an energy-isolating device in a position that prevents energization of a machine, equipment, or a process. Lockout is the isolation of energy from a machine, equipment, or process that physically locks the system in a safe mode. The energy-isolating device can be a manually operated disconnect switch, a circuit breaker, a line valve, or a block. In most cases, these devices will have loops or tabs which can be locked to a stationary item in a safe position (de-energized position).
- **Lockout device:** The locking device (or lockout device) can be any device that has the ability to secure the energy-isolating device in a safe position. The lockout device holds energy-isolation devices in a safe or "off" position. They provide protection by preventing machines or equipment from becoming energized because they are positive restraints that no one can remove without a key or other unlocking mechanism, or through extraordinary means, such as bolt cutters.
- **Tagout:** Tag out is a labelling process that is always used when lockout is required. The process of tagging out a system involves attaching or using an information tag or indicator (usually a standardized label).
- **Tagout device.** A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.
- **Lockout Tagout:** Refers to specific practices and procedures to bring a machine to a zero-energy state to safeguard workers from the unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities.

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- **Stored Energy:** (also known as residual or potential energy) is energy that remains in a system even when it is not actively being used. This energy can be found in various forms, such as electrical, mechanical, hydraulic, elastic, pneumatic, chemical, thermal (e.g. hot liquids, solids, gases), kinetic, potential, static, rotational, out of balance, light, gravitational and radiation. When released unexpectedly, stored energy can pose significant hazards, potentially causing injuries like crushing, cutting, burning or electrocution.

The full list of definitions which are in common usage are provided in [Annex A: Definitions](#).

### 4. Responsibilities

- All **Regional Managing Directors (RMD)** and **Head of Project Execution (PE)** shall set expectations and assure that each site in their geographical scope of responsibility has the resources needed to successfully implement and maintain controls provided in this document.
- **Terminal Managing Directors and Project Directors** shall ensure that controls required in this document are implemented in their operations and escalate issues impacting the implementation and maintenance of controls to their RMD in a timely manner.
- **COO/ Head of Operation** shall ensure that the controls required in this document are implemented in their operation(s) and that the application and effectiveness of those controls is adequately supervised to ensure they are respected and adhered to.
- **Supervisors and Team leaders** shall ensure that the controls provided in this document and associated risks are communicated with their team(s) to ensure awareness and ensure that people are adequately trained to work with the control measures.
- **Employees, contractors, third party and visitors** shall adhere to control measures communicated to them, report any dysfunctional or ineffective controls to their manager as soon as possible and share their ideas on improving the controls involved in their work.
- **Terminal and Project Heads of HSSE** shall establish and execute a terminal implementation plan together with their Global HSE BP and Terminal MD to ensure that all controls are implemented in their operation(s).
- The **Global Head of S&R** shall maintain these Global Standards and ensure assurance is obtained on its implementation and effectiveness in APM Terminals.
- **HSE Business Partners** shall establish and execute an implementation plan to ensure that the responsibilities provided in this document are allocated and controls required are implemented in all operations and sites.

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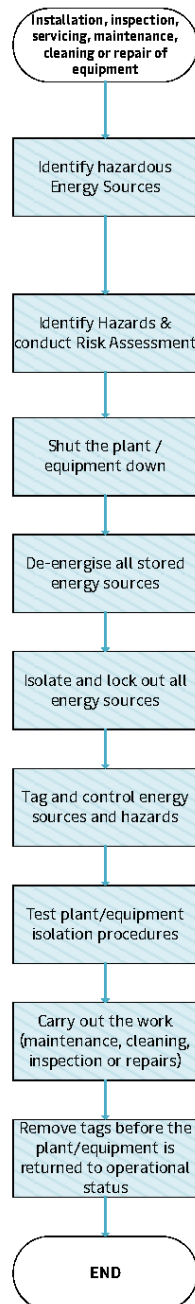
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### 5. Process



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### 6. Requirements

#### 6.1 Identify Hazardous Energy Sources and Conduct Risk Assessment

- All hazardous energy sources (mechanical energy, hydraulic energy, pneumatic energy, chemical energy, thermal energy and stored energy) connected to equipment likely to place people doing the work at risk shall be identified.
- All routine equipment installation, inspection, maintenance, cleaning, or repair work-related activities shall be subject to a hazard identification, risk assessment and Standard Operating Procedure (SOP).
- Non routine activities shall be governed through a Permit to Work and a Job Hazard Analysis.
- Hazard identification and the Hierarchy of Controls shall be clearly visualized in all risk assessments.

#### 6.2 Develop Isolation and Lockout Tagout Procedures

- All sites shall have a documented Isolation procedure and a Lockout Tagout procedure for each type of equipment for installation, inspection, maintenance, cleaning, or repair work. The Isolation and Lockout Tagout procedures can either be developed as separate procedures or combined into a single SOP.
- Manufacturer instructions and Operations & Maintenance (O&M) manuals must be followed during all Lockout Tagout activities.
- The Head of Asset Maintenance (or the Project Director/Project Manager in the case of projects) shall appoint an Authorised Person responsible for physically disconnecting a piece of equipment from all energy sources, using isolation devices (circuit breakers, disconnect switches, or valves) to cut off energy supply, ensure that all energy sources are effectively isolated and that the equipment is de-energized.
- An Authorised Person is someone who has received Lockout Tagout specific training and written authorisation (from the Head of Asset Maintenance) to apply and remove Lockout Tagout devices and perform energy isolation. The Authorised Person shall have knowledge of hazardous energy sources, have equipment knowledge, be competent in reading O&M manuals and able to follow machine-specific Lockout Tagout procedures.
- The Isolation and Lockout Tagout procedures shall cover:
  - identification of all hazardous energy sources and hazards.
  - record of isolation points.
  - specific sequential steps for shutting down the equipment and controlling hazardous energy.
  - steps for the placement and removal of lockout locks, tags, and isolation devices

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- the process for defining how the isolation will be verified as hazard free (zero-energy).
  - ways to verify the equipment has been properly locked out.
  - the process for safely returning the equipment to service.
- Develop a corresponding de-isolation plan to return the equipment to the de-isolated state.
- Energy shall be isolated if a person must put any part of their body into a machine or equipment to perform work at a point of operation or if there is a zone of danger around machinery.
- Special procedures, based on a risk assessment process, shall be prepared by an Authorized Person for activities performed on installations, machinery, equipment, and tools which cannot be brought into a zero-energy state, or it is not possible to use a locking device.
- If work cannot be conducted in a zero-energy state (meaning that hazardous energy must remain active or partially active), additional measures developed from a risk assessment shall be implemented to control risk and ensure worker safety. This situation shall be by exception and should only occur when absolutely necessary (e.g., for testing, diagnostics or live system calibration).
- All procedures shall have a verification step to determine the energy sources have been isolated. For example, using a voltage meter to check electrical or bleeding all air out of the system.
- A procedure shall be in place for transfer (hand-over) of the isolation between personnel and, in particular shift changeovers.
- The Lockout Tagout procedure shall include requirements for notification to Affected Personnel of the application and removal of lockout or tagout devices before controls are applied, and after they are removed from the equipment.
- The Lockout Tagout procedure shall ensure that individuals protected by the energy isolating devices shall have control of the isolation and be notified of status changes.
- The Isolation procedure shall establish inspection requirements to verify that the isolation and de-energization of equipment, machinery or processes are adequate for safe work.
- Where it is necessary to work on live/un-isolated equipment when doing commissioning, decommissioning, testing, calibration, sampling, adjustments, fault finding and troubleshooting, such work shall be carried out under a Permit to Work.
- Emergency procedures and scenarios shall be developed to address incidents involving stored energy

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### 6.3 Implement Isolation

- The Authorised Person shall ensure the isolation of all energy sources and potential hazards to prevent direct contact/exposure to those working on the equipment.
- Shut down the equipment, disconnect or isolate the equipment from the energy source(s).
- Provisions shall be in place to address extended period isolations and re-energizing for test purposes.
- Isolation shall either be provided by positive protection and be achieved by the use of permanent or temporary locking devices or establishment of a physical barrier or separation.
- Lockout devices shall ensure that the isolations are in a safe or off position that prevents energizing of machine or equipment during work.

### 6.4 Tag Isolation Points and Control Hazards

- Identified isolation points, regardless of whether they are in line of sight of the work or not, shall be locked, tagged and recorded in an Equipment Isolation Checklist or Isolation of Hazardous Energy Permit to Work prior to beginning work.
- Isolation points that cannot be locked shall be tagged.
- Locks and tags used to isolate hazardous energy shall conform to criteria specified in a local Isolation and Lockout Tagout SOP, including but not limited to:
  - locks used to secure an energy isolation device must be used for no other purpose.
  - withstand exposure to withstand the environment in which they are used without deterioration or legibility of the message.
  - marked with a distinct indicator that is standardized and identifiable by colour, shape, and size.
  - properly labelled or marked to identify the person(s) performing work under the energy isolation procedure.
  - locks must be strong enough to prevent removal without excessive force or unusual techniques (e.g., bolt cutters).
  - indicate the identity and date of the person who applied the device.
- Each person involved in Lockout Tagout, whether internal or external to APM Terminals, shall use their own uniquely identifiable personal lock. Locks must not be shared across functions, contractors, or shifts.
- The Authorised Person is responsible for ensuring procedures affecting the use of tags are followed.

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- Tags shall display a message warning against hazardous conditions if the machine or equipment is energized.
- Anyone with access to the area where Isolation and Lockout Tagout is being performed shall be instructed not to touch these tags and locks under any circumstance, unless authorized and approved in writing by the Authorised Person.
- No one should interfere with or operate any tagged equipment such as a main switch, push button or other device until the item has been cleared for safe operation and the attached tag has been removed.
- The tag shall only be removed by the person who attached it, or by the Authorised Person in accordance the Isolation and Lockout Tagout SOP.

### 6.5 Test and Monitor Equipment Isolation Procedures

- The Authorised Person shall check or verify each isolation point in person.
- The Isolation and Lockout Tagout SOP shall contain specific requirements for testing the effectiveness of locks, tags and other devices used to control energy.
- After the plant/equipment has been shut down, locked out and tagged, all isolated power sources should be tested first with appropriate instruments and then by trying to activate the plant, conduct zero energy checks to prove isolation before any person attempts to start work on the equipment.
- The calibration of any instruments required to test Isolation procedures should be checked before use.
- In the case of isolation for electrical work, a test for the absence of voltage shall be carried out.
- Test that the isolation is effective by trying to reactivate the plant without exposing the tester or others to risk.

### 6.6 Carry Out the Work

- Prior to the commencement of work, a documented pre-work meeting or Toolbox Talk shall be conducted with the work team and the Authorized Person to confirm that all isolations are in place and confirm the specific requirements for Lockout Tagout.
- Work on equipment shall not begin until the Authorised Person confirms it is safe to do so.
- Work handover between shifts shall be documented and include verification of energy isolation to ensure continuity of protection.
- SQDC (Safety, Quality, Delivery, Cost) Boards shall be used to visually communicate Lockout Tagout status and related information during all equipment startups and shift handovers.

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- All equipment subject to Lockout Tagout shall be visually represented using dedicated lock display stations or equivalent tools to indicate its Lockout status.
- Off-going personnel, whose work in operations are or may be in an area where Isolation and Lockout Tagout procedures are in place, shall document and communicate the conditions to on-coming personnel.
- Incoming personnel shall place their personal locks before off-going personnel remove their locks on the Lockout device(s).
- Incoming personnel, whose work in operations are or may be in an area where isolation and Lockout Tagout procedures are in place, shall verify that the equipment identified in the Lockout Tagout procedure is secured and in a zero-energy state.
- If the worksite is left unattended, it shall be left safe, and all electrical must be locked and tagged.
- The Lockout Tagout SOP shall identify all situations where it is necessary for overriding or disabling safety controls. Conduct a risk assessment to identify potential hazards associated with overriding or disabling safety controls and what temporary safety measures shall be implemented to protect workers during the period when the safety controls are overridden or disabled. The person responsible for the task shall submit a formal request to the Authorized Person for authorization to override or disable safety controls.
- Verify during work that energy has not reaccumulated to hazardous levels
- Once the work is completed, the workers who tagged the controls remove the locks and tags before the plant is returned to operational status.
- The Authorized Person shall confirm that the work on the equipment is completed and give authorization to return the equipment to the de-isolated state.

### **6.7 Tagout, Test, De-isolate and Reinstate Equipment**

- The Lockout Tagout SOP shall outline the specific sequential steps for de-solation, re-energization, and return-to-service of equipment.
- Prior to authorizing de-isolation, the Authorized Person ensures that:
  - equipment/systems that were isolated are now safe to energize.
  - the status of the isolation device(s) enables safe de-isolation.
  - all work on the Permit to Work has been completed satisfactorily.
  - any areas or operations that may be affected by the de-isolation are identified.
  - any communication considered necessary or appropriate have been carried out.
- The de-isolation procedure shall include special upset conditions such as an emergency, keys are lost, or the Authorized Person has left the workplace. The SOP shall identify a



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person, or Authorized Person's delegate, whose approval is required to de-isolate in these circumstances.

- After removing the Lockout Tagout devices but before re-energizing the machine/equipment, the Authorized Person shall ensure that all workers/contractors who operate or work with the equipment, as well as those in the area where service or maintenance is performed, know that the devices have been removed and that the equipment is planned to be re-energized.
- After Lockout Tagout is removed and equipment is re-energized, additional safeguards (such as controlled start-up sequence, area clearance, audible pre-start alarms and lights/signals, manual override controls, bypass protection, guards, shields, physical barriers, etc.) shall be in place to prevent unintended or hazardous operation, especially during initial start-up, test runs, or functional checks.
- Inform Permit Issuer/Coordinator to close the Permit to Work.

### 6.8 Training

- Provide training on the above procedures and supervision to ensure their appropriate execution.
- People working with Stored Energy sources shall be trained to understand the risks involved and the controls implemented to protect them.
- Employees and contractors required to undertake any form of Isolation, shall be trained and assessed (including simulated field assessment) as competent before conducting isolation procedures.
- Each Authorized Person shall receive training in the recognition of hazardous energy sources, the type and magnitude of the energy available in the workplace, learn how to perform Lockout Tagout while servicing or performing maintenance; they need to know the proper steps for isolating and locking out energy sources and should be trained on methods for verifying the accuracy of the lockout.
- Apply TWI Job Instruction to train personnel on specific isolation procedures (e.g., applying locks/tags, verifying de-energization).

### 6.9 Self-Assessment

- The isolation procedures shall be periodically reviewed and documented to ensure that any previously unidentified gaps are identified and rectified.
- Site HSE Managers shall complete an annual self-assessment of conformance to this Global Standard and submit the results to the Global HSE BPs.

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### 7. References

| Reference Material                                  |
|-----------------------------------------------------|
| <a href="#">Visual Control Points Stored Energy</a> |
| Permit to Work Global Standard APMT-HSSE-REQ-012    |

### 8. Document Control

| Document Control Details |           |                                                                   |                                                 |                                                                  |                                                  |
|--------------------------|-----------|-------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------|
| Date Issued              | Version # | Standard Owner<br>(Name & Role)                                   | Reason for<br>Change                            | Review By<br>(Name)                                              | Approved By<br>(Name & Role)                     |
| January 2015             | 1.0       |                                                                   | New document                                    |                                                                  |                                                  |
| 21-July-23               | 2.0       |                                                                   | Updated for both<br>APMT & APMM<br>requirements |                                                                  |                                                  |
| 10-July-2025             | 3.0       | Nigel Rossouw<br>(Senior QHSE Center<br>of Excellence<br>Manager) | Fatal 5 risk<br>updates                         | Michiel Klaui,<br>Jimmy Malko,<br>Andreas Maria<br>van der Wurff | Aslak Ross<br>(Head of Safety<br>and Resilience) |

|                                                                                         |                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard Owner:</b><br><br>Nigel Rossouw<br>Senior QHSE Center of Excellence Manager | <b>Owner Signature:</b><br><br><br>Signed by:<br>Nigel Joseph Rossouw<br>BB6792513EA340D... |
| <b>Approved By:</b><br><br>Aslak Ross<br>Head of Safety & Resilience                    | <b>Approver Signature:</b><br><br><br>Signed by:<br>Aslak Ross<br>2DEB5268E2A84AF...         |

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### 9. Annexes

#### 9.1 Annex A: Definitions

| Terms                      | Definitions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Affected Personnel</b>  | In the context of Lockout Tagout procedures are workers who are required to operate or use machines or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area where such servicing or maintenance is being performed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Authorized Person</b>   | Person authorized to perform energy source isolation, implement Lockout Tagout on equipment (to perform servicing or maintenance), verify energy isolation and implement actions to release Lockout Tagout.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Chemical energy</b>     | Energy created by a chemical reaction between two or more substances. Stored chemicals that can react.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>De-energization</b>     | The process that is used to disconnect and isolate a system from a source of energy to prevent the release of that energy. By de-energizing the system, the risk that the system could inadvertently, accidentally, or unintentionally cause harm to a person through the release of hazardous energy is eliminated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Energized</b>           | Connected to an energy source or containing residual or stored energy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Energy source</b>       | Refers to any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy that could cause harm if released unexpectedly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Hydraulic energy</b>    | The energy of pressurized, moving liquids, usually water or oil, in accumulators or lines. Pressurized liquids in hydraulic systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Isolation</b>           | Refers to the process of systematically shutting down, blocking, securing and isolating machinery or equipment from its energy source to prevent accidental startup, unexpected energization of equipment or release of residual and/or stored energy during installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. This practice is crucial for ensuring the safety of workers during maintenance or servicing activities.                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Lockout</b>             | Lockout is the placement of a lockout device on energy isolation devices to ensure the responsible employee maintains control over any hazardous energy and the equipment being controlled cannot be operated until the lockout device is removed. A lockout device is a mechanical means of locking that uses an individually keyed lock to secure an energy-isolating device in a position that prevents energization of a machine, equipment, or a process. Lockout is the isolation of energy from a machine, equipment, or process that physically locks the system in a safe mode. The energy-isolating device can be a manually operated disconnect switch, a circuit breaker, a line valve, or a block. In most cases, these devices will have loops or tabs which can be locked to a stationary item in a safe position (de-energized position). |
| <b>Lockout device</b>      | The locking device (or lockout device) can be any device that has the ability to secure the energy-isolating device in a safe position. The lockout device holds energy-isolation devices in a safe or "off" position. They provide protection by preventing machines or equipment from becoming energized because they are positive restraints that no one can remove without a key or other unlocking mechanism, or through extraordinary means, such as bolt cutters.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Lockout Tagout</b>      | Refers to specific practices and procedures to bring a machine to a zero-energy state to safeguard workers from the unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Mechanical energy</b>   | Energy created by a machine's moving parts, like wheels, springs or elevated parts. Springs, flywheels, and other components under tension or compression.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Pneumatic energy</b>    | The energy of pressurized, moving gas, as found in air in tanks and lines. Pressurized air in pneumatic systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Pressurized systems</b> | Pressurized systems are comprised of one or more pressure vessels, connected by pipework and protective devices. They hold stored energy in the form of pneumatic or hydraulic pressure which could cause injury when suddenly released.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Stored energy</b>       | (also known as residual or potential energy) is energy that remains in a system even when it is not actively being used. This energy can be found in various forms, such as electrical, mechanical, hydraulic, elastic, pneumatic, chemical, thermal (e.g. hot liquids, solids, gases), kinetic, potential,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|                       |                                                                                                                                                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | static, rotational, out of balance, light, gravitational and radiation. When released unexpectedly, stored energy can pose significant hazards, potentially causing injuries like crushing, cutting, or electrocution.                                                     |
| <b>Tagout</b>         | Tag out is a labelling process that is always used when lockout is required. The process of tagging out a system involves attaching or using an information tag or indicator (usually a standardized label).                                                               |
| <b>Tagout device</b>  | A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed. |
| <b>Thermal energy</b> | Heat energy; most commonly, steam energy. Residual heat in equipment                                                                                                                                                                                                       |

# CONTROL OF CONTRACTORS

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All contractors and sub-contractors shall work in accordance with APM Terminals and site-specific requirements.

### 1. Purpose

The purpose of this standard is to provide critical controls to reduce risks associated with Control of Contractors and guidance to fulfil these requirements to prevent injury and ill health.

### 2. Scope

The requirements provided by this Standard apply to all APM Terminals controlled facilities and may be used to support improvements in uncontrolled facilities and shall be used in the selection of service providers.

### 3. Definitions / Key Terms

**Contractor:** Is a company that provides specialized service to APMT under a contract situation with agreed specifications, terms, and conditions. Contractors can be fixed: (24 hours a day, 7 days a week, 365 days a year) or variable: for an infrequent/specific tasks and with limited duration.

Contractor Mode Definitions:

- **Mode C1** - APMT has operational control of the facility and leads and directs the work. The contractor provides people, processes and/or equipment for the execution of the contract under the oversight, instructions, and HSE Management System of APMT.
- **Mode C2** - APMT has operational control of the facility, but the contractor leads and directs the work. The contractor provides people, processes, equipment and/or facilities for the execution of the contract, under its own HSE Management System.
- **Mode C3** - Work/services provided outside APMT facility where APMT has no operational control and contractor leads and directs the work. Contractor's Management System applies. When needed APMT influences per agreed contract terms & conditions.
- **Supplier** - Is a company that provides products, commodities, or services to APMT and APMTs contractors.

3<sup>rd</sup> Party Mode Definitions:

- **Mode P1** - APMT has operational control of the facility accessed by the 3rd party. The activities of the 3rd party are under the oversight, instructions, and HSE Management

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System of APMT and/or APMT has provided the processes, instructions and/or equipment used by the 3rd party.

- **Mode P2** - APMT has operational control of the facility, but the 3<sup>rd</sup> party accesses the facility to undertake work on behalf of another legal entity/regulator or in response to an emergency. The 3rd party provides people, processes, equipment, and/or facilities for the execution of the activities, under its own HSE Management System.

### 4. Responsibilities

- All **Regional Managing Directors (RMD)** and **Head of Project Execution (PE)** shall set expectations and assure that each site in their geographical scope of responsibility has the resources needed to successfully implement and maintain controls provided in this document.
- **Terminal Managing Directors and Project Directors** shall ensure that controls required in this document are implemented in their operations and escalate issues impacting the implementation and maintenance of controls to their RMD in a timely manner.
- **COO/ Head of Operation** shall ensure that the controls required in this document are implemented in their operation(s) and that the application and effectiveness of those controls is adequately supervised to ensure they are respected and adhered to.
- **Supervisors and Team leaders** shall ensure that the controls provided in this document and associated risks are communicated with their team(s) to ensure awareness and ensure that people are adequately trained to work with the control measures.
- **Employees, contractors, third party and visitors** shall adhere to control measures communicated to them, report any dysfunctional or ineffective controls to their manager as soon as possible and share their ideas on improving the controls involved in their work.
- **Terminal and Project Heads of HSSE** shall establish and execute a terminal implementation plan together with their Global HSE BP and Terminal MD to ensure that all controls are implemented in their operation(s).
- The **Global Head of S&R** shall maintain these Global Standards and ensure assurance is obtained on its implementation and effectiveness in APM Terminals.
- **HSE Business Partners** shall establish and execute an implementation plan to ensure that the responsibilities provided in this document are allocated and controls required are implemented in all operations and sites.

### 5. Process

Not applicable.

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### 6. Requirements

#### 6.1 Planning

- Develop or insert existing HSSE requirements into the contractual scope of work to be executed.
- Define expected requirements for historical HSSE performance of the contractor.
- Define the applicable laws and regulations to which the contractor needs to adhere.
- Apply the APMT Risk Management Global Process to identify the inherent HSSE hazards and assess the sources and types of risk involved in conducting the work.
- Define the risk mitigating actions or controls to be carried out during the contract.
- Define the contract mode and HSSE responsibilities to ensure risk mitigation and control by determining which party's HSSE management system is best suited to managing the risks associated with the scope of work.
- Define HSSE evaluation criteria for contractor Bid evaluation and selection.

#### 6.2 Contractor Selection

- All contractors, including vendors and suppliers engaging in or working with APM Terminals must hold the relevant licenses, permits, certifications, insurance and meet local legal legislation.
- Contractors and vendors shall be selected with consideration of their HSE performance and capabilities, this can be assessed by a competent person within terminal HSSE or procurement using the Contractor and Vendor HSSE assessment form.

#### 6.3 Project Execution

Within Project Execution/BIM the following step by step contractor selection process is followed:

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Figure 1 - Project Execution Contractor Selection Process





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1. **Pre-Qualification:** Initial screening by procurement to confirm that all bidding companies meet the minimum HSSE entry criteria

Figure 2 - Pre-Qualification Questionnaire

| Health, Safety Security and Environment (HSSE) |                                                                                                                                                   |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1                                            | Outline the Project HSSE Policies                                                                                                                 |
| 6.2                                            | Outline the Projects Assurance. Namely project wide monitoring program; inspections; deep dives; third party audits and safety tours              |
| 6.3                                            | Provide evidence of environmental and safety accreditations (14001 or 18001) or similar that meets same requirements                              |
| 6.4                                            | Provide a copy of the index to your safety and health management system                                                                           |
| 6.5                                            | Explain your safety and health strategy and how goals targets and objectives are set                                                              |
| 6.6                                            | Provide evidence of the project engagement structure and how roles / responsibilities will be allocated to ensure expectations are met            |
| 6.7                                            | Outline the projects process for on boarding Tier 2 suppliers; how clauses and Client specific requirements are met and comment on tiering policy |
| 6.8                                            | Comment specifically on the project specific Behavioral Safety Program you will lead and implement                                                |
| 6.9                                            | Share with us your project specific Communication Plan; outlining how you will market safety and reinforce desired behaviors                      |
| 6.10                                           | Following receipt of the assurance outputs explain how performance will be rolled up and action taken to prevent harm and or consequences         |
| 6.11                                           | Please provide Safety Performance Record - Please use format in Appendix 5                                                                        |
| 6.12                                           | Please provide Environmental Performance Record - Please use format in Appendix 5                                                                 |

2. **Initial Scoring & Selection:** bidder's submissions are evaluated using a structured checklist. Results are formally presented and discussed to the project team. Shortlisted companies are selected.

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Figure 3 - Contractor Selection and Qualification Matrix



MULTIPLIER FACTOR

2 = Essential requirement with implementation compliance

1 = Standard requirement with implementation monitoring

SCORE

3 = Very High Standard/ Comply with

2 = High Standard

1 = Medium Standard

0 = Low Standard/ Not comply with

Contractor HSSE Qualification and Selection Matrix

| Category / Evaluation Criteria                    | Multiplier Factor Weight | CONTRACTOR 1<br>RFP Response                    | CONTRACTOR 1<br>PQQ Response                    | CONTRACTOR 2                               | CONTRACTOR 3                                     | CONTRACTOR 4                                     | CONTRACTOR 5                                                                   | CONTRACTOR 6                                     |
|---------------------------------------------------|--------------------------|-------------------------------------------------|-------------------------------------------------|--------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------|
|                                                   |                          | Not Recommended<br>Substandard HSSE Performance | Not Recommended<br>Substandard HSSE Performance | Recommend<br>Satisfactory HSSE Performance | Highly Recommended<br>Exemplary HSSE Performance | Highly Recommended<br>Exemplary HSSE Performance | Conditionally Recommended (with improvement plan)<br>Marginal HSSE Performance | Highly Recommended<br>Exemplary HSSE Performance |
| EQUIVALENCE<br>TECHNICAL EVALUATION<br>1 up to 10 |                          | 2                                               | 4                                               | 8                                          | 9                                                | 10                                               | 7                                                                              | 10                                               |

| SCORE RANGE | QUALITATIVE ASSESSMENT        | RECOMMENDATION                                    |
|-------------|-------------------------------|---------------------------------------------------|
| 48-57       | Exemplary HSSE Performance    | Highly Recommended                                |
| 42-47       | Satisfactory HSSE Performance | Recommend                                         |
| 36-41       | Marginal HSSE Performance     | Conditionally Recommended (with improvement plan) |
| <36         | Substandard HSSE Performance  | Not Recommended                                   |

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3. **Technical Queries:** A set of scope specific technical HSSE questions will be issued to the shortlisted companies to prepare for the interview with the health and safety representative.
4. **Interview:** meetings between the APMT Project HSSE Manager and the HSE representatives of the shortlisted bidders to assess competence, vision and cultural HSSE alignment.
5. **On-site Verification Visit:** The shortlisted contractors are asked to organize a reference visit on one of their ongoing projects. APM Terminals HSE representative will verify the HSSE conditions and on-site performance.
6. **Final Assessment:** APM Terminals HSE Manager drafts comparative summary of findings and conclusions and presents to the Project Team to consider for contract award.

### 6.4 Start-up (mobilize)

- Contractors, vendors and suppliers shall comply with the APM Terminals HSSE Policy and HSSE Framework requirements.
- Terminal management shall appoint a representative responsible for managing contractors, vendors and/or contracts at the terminal and serve as a point of contact.
- Any APM Terminal representative appointed to manage or interact with contractors, vendors and suppliers must receive training and be competent.
- The representative shall, together with each contractor / vendor define:
  - The scope of work, performance criteria and monitoring requirements (audits, inspections and observations)
  - Identification of hazards, assessment of risks and acceptable risk controls relevant to the proposed works / tasks (including the environment, spills, contamination and waste arrangements)
  - How the workers of the contractor / vendor shall be informed of risks in the workplace
  - HSSE induction, training and competence requirements
  - Minimum HSSE documentation requirements including work permits and terminal permits to work system
  - Procedures and work instructions for work to be carried out including any integration into APM Terminals SOP's and terminal operations including security, access and traffic management
  - Effective communication mechanisms and methods
  - Emergency protocols and contact arrangements
  - Personal Protective Equipment (PPE) requirements and lone worker arrangements
  - HSSE performance review & feedback sessions

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On Projects run By Project Execution/BIM the Safe To start Protocol is initiated. To ensure that the project requirements are fulfilled. (E.g. Approval of HSSE plans, Method statements).

### 6.5 Execute

- Contracted work at a terminal or site shall be controlled by a permit-to-work system (APMT-HSSE-REQ-012 Permit to Work). A permit shall contain:
  - Chronologically listed activities
  - The hazards, risks and controls for each activity / service
  - Duration of the permit and location of activities / service
  - Name and signature of the contractor / vendor and APM Terminals representative
  - Date of approval
- Permit-to-work can be extended for contracted activities, provided a risk assessment completed, activities are not changed, approved by relevant parties and communicated to involved functions. Note: risk assessments should cover shift changes, fatigue, lighting and visibility, traffic management plans, etc.
- Mobile equipment and tools used by contractors and vendors must be fit for purpose, certified and personnel are competent and certified to operate / use.
- Fitness for work programs should be implemented to ensure personnel can perform their tasks safely. The program should aim to remove or minimize impacts from:
  - High risk jobs such as confined spaces, diving, working at heights
  - Environmental conditions such as heat and cold
  - Fasting and diets
  - Fatigue
  - Medications and other medical conditions.
  - Drug and alcohol
  - Implementation of periodic fitness checks for long-term projects
- Terminal management shall ensure that the implementation of controls within the work permit are verified by inspections performed before, during and after work.
- Consequences for not adhering to a permit-to-work or minimum HSSE requirements shall be included in the contract(s) with each contractor / vendor. Such consequences may include but not limited to:
  - Termination of contract
  - Removal from the location / terminal / site

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- Stop of work until any findings are resolved
- Penalties
- Written request for improvement
- The HSSE performance of contractors and vendors shall be reviewed and evaluated annually by APM Terminals. This can be completed by a competent person within terminal HSSE or procurement with the appointed representative / function using the Contractor and Vendor HSSE assessment form.
- Short and long-term contractor work hours shall be captured by the terminal representative and reported monthly into OneStream by finance.
- On projects under Project Execution/BIM the monthly HSSE Performance will be captured in PM web

### 6.6 Close-out (complete / de-mobilize)

- Terminals shall maintain a list of approved contractors and vendors who have demonstrated an ability to conduct their activities in accordance with APM Terminals standards.
- The approved contractors and vendors list shall be reviewed annually by a competent person within HSSE or procurement.

### 6.7 Training

- All contractors must undergo HSSE Induction training before commencing work, this must be refreshed annually
- All APM Terminals staff managing contractors or involved in contractor selection must have training against basic HSE principles and anti- corruption & bribery.

### 6.8 Self-assessment

- Site HSE Managers shall complete an annual self-assessment of conformance to this Global Standard and submit the results to the Regional HSE BPs.

## 7. References

| Reference Material                           |                                                |
|----------------------------------------------|------------------------------------------------|
| <a href="#">APM Terminals HSSE Policy</a>    | <a href="#">Control of Contractors VCP-030</a> |
| <a href="#">APM Terminals HSSE Framework</a> | <a href="#">HSSE Management Framework</a>      |
| Contractor and Vendor HSSE assessment        | Contractor and Vendor HSSE assessment          |
| APMT-HSSE-REQ-012 Permit to Work             | APMT-HSSE-REQ-012 Permit to Work               |

## Fatal 5 - Control of Contractors

APM Terminals Global Standard

Function/Department Name: Safety & Resilience

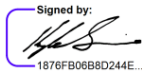
Document Number: APMT-HSSE-REQ-011

Version: 3.0



### 8. Document Control

| Document Control Details |           |                                                |                                           |                                                                 |                                               |
|--------------------------|-----------|------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------|
| Date Issued              | Version # | Standard Owner<br>(Name & Role)                | Reason for<br>Change                      | Review By<br>(Name)                                             | Approved By<br>(Name & Role)                  |
| January 2015             | 1.0       |                                                | New document                              |                                                                 |                                               |
| 12-June-21               | 2.0       |                                                | Updated for both APMT & APMM requirements |                                                                 |                                               |
| 09-Jul-2025              | 3.0       | Kyle Bennie<br>(HSE Regional Business Partner) | Fatal 5 risk updates                      | Nathan Ferris,<br>Andreas Maria van der Wurff,<br>Michiel Klaui | Aslak Ross<br>(Head of Safety and Resilience) |

|                                                                            |                                                                                                                                                            |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard Owner:</b><br><br>Kyle Bennie<br>HSE Regional Business Partner | <b>Owner Signature:</b><br><br><br>Signed by:<br>1876FB06B8D244E...       |
| <b>Approved By:</b><br><br>Aslak Ross<br>Head of Safety & Resilience       | <b>Approver Signature:</b><br><br><br>Signed by:<br>2DEB5268E2A84AF... |

### 9. Annexes

Not used.

## Appendix B: Bid Package - Request for Information

As part of the contractor's proposal and bid, the following safety-related information may be requested from the contractor by Port Pipavav:

|                                                       |                                                                                                      | YES | NO |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----|----|
| Respect for laws and regulation                       |                                                                                                      |     |    |
| 1                                                     | Are you in Compliance with required Indian and international standards?                              |     |    |
| 2                                                     | Do you have HSE certificates ISO 9001, ISO 14001 and ISO 45001                                       |     |    |
| 3                                                     | Do you have any other HSE certificates                                                               |     |    |
| Responsibilities of Management                        |                                                                                                      |     |    |
| 4                                                     | Do you have Corporate HSE Policy, HSE Management System                                              |     |    |
| 5                                                     | Do you have HSE organization chart (with names), job description, ...                                |     |    |
| 6                                                     | Do you have Site communication organization plan (safety instructions, HSE meetings, site talks...)  |     |    |
| 7                                                     | Do you have HSE induction document                                                                   |     |    |
| Operational procedures                                |                                                                                                      |     |    |
| 8                                                     | Do you have HSE manual (including site operational procedures..)                                     |     |    |
| 9                                                     | Do you have Permit To Work System                                                                    |     |    |
| 10                                                    | Do you have Work at height procedure                                                                 |     |    |
| 11                                                    | Do you have Lifting and handling procedure                                                           |     |    |
| 12                                                    | Do you have Document control system                                                                  |     |    |
| 13                                                    | Do you have Nomination of Site HSE responsible                                                       |     |    |
| Risk evaluation and mitigation plan                   |                                                                                                      |     |    |
| 14                                                    | Do you have General hazards identification (listing), job risks assessment and mitigation plan       |     |    |
| 15                                                    | Do you have Specific operational risks relating to Project service and mitigation plan               |     |    |
| 16                                                    | Do you have Housekeeping procedure                                                                   |     |    |
| Respect for the Environment & Sustainable Development |                                                                                                      |     |    |
| 17                                                    | Do you have Environmental plan (waste reduction, water/air/soil management, antipollution plan..)    |     |    |
| 18                                                    | Do you have Waste management plan                                                                    |     |    |
| 19                                                    | Do you have Sustainable Development plan, actions                                                    |     |    |
| Safeguarding of Health                                |                                                                                                      |     |    |
| 20                                                    | Do you have Health and hygiene preparedness (medical fitness, capacity certificate, hygiene plan...) |     |    |
| 21                                                    | Do you have Personnel protective equipment (Identification of requirement, Availability and Use)     |     |    |
| 22                                                    | Do you have an Identification and management procedure of dangerous substances                       |     |    |

|                                   |                                                                                                                                                                                       | YES | NO |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| 23                                | Do you have Fire prevention/protection equipments                                                                                                                                     |     |    |
| 24                                | Do you have Alcohol, drugs & smoking policy                                                                                                                                           |     |    |
| 25                                | Do you have Driving policy and measures                                                                                                                                               |     |    |
| Contractors and suppliers         |                                                                                                                                                                                       |     |    |
| 26                                | Subcontractor evaluation system, close-out evaluation, contract HSE requirements (example..)                                                                                          |     |    |
| 27                                | Contractor inspection & audit plan                                                                                                                                                    |     |    |
| Personnel competency and training |                                                                                                                                                                                       |     |    |
| 28                                | Do you have Competence identifying and training plan                                                                                                                                  |     |    |
| Emergency preparedness            |                                                                                                                                                                                       |     |    |
| 29                                | Do you have Emergency preparedness procedures, evacuation plan, fire fighting, planned drills                                                                                         |     |    |
| Incident analysis                 |                                                                                                                                                                                       |     |    |
| 30                                | Do you have Incident/accident report system                                                                                                                                           |     |    |
| 31                                | Do you have Investigation & action follow-up system                                                                                                                                   |     |    |
| 32                                | Do you have Anomalies reporting system                                                                                                                                                |     |    |
| Audits & inspections              |                                                                                                                                                                                       |     |    |
| 33                                | Do you have Audits and inspections system                                                                                                                                             |     |    |
| HSE Indicators & Performances     |                                                                                                                                                                                       |     |    |
| 34                                | Do you have Follow-up action plan, HSE improvement plan, incentive plan.                                                                                                              |     |    |
| 35                                | Do you have Goals & objectives system, targets and history (at least for the last 3 years)                                                                                            |     |    |
| 36                                | Do you have Lagging indicators reported: Lost Time Injury Frequency LTIF, Total Recordable Incident Rate TRIR, Severity Rate SR, high potential Near Miss Incidents NIM and others... |     |    |

Attachment to be provided:

HSE Certificates

HSE Policy and HSE Management System (Table of Content)

HSE organisation chart with names

HSE induction document

Permit To Work system description

Waste management plan

Safety indicators for the last 3 years



## Appendix C: Safety Induction

Every person engaged by a contractor, including sub-contractor personnel, shall complete HSSE induction training delivered by the Port HSE team before commencing any work at Port Pipavav. This requirement is part of the Fatal 5 - Control of Contractors and applies without exception.

Induction shall be refreshed periodically as per the Safety Card validity and repeated whenever the scope of work, the work location or the associated risks change significantly. It shall be delivered in Hindi or Gujarati where required to ensure that the content is genuinely understood by the workforce, and not merely signed for.

Attendance records, assessment results and the signed acknowledgement shall be retained by the contractor and made available to Port HSE on demand. A port security pass shall not be issued, and no work shall commence, until induction has been completed and recorded.

Every inductee shall be made aware that they hold Stop Work Authority: any person who believes a task is unsafe has both the authority and the obligation to stop the work, without fear of reprisal, in accordance with the GPPL HSE Stop Work Authority (SWA) SOP.

### Induction Topics

The topics below shall be covered. The depth of coverage for each topic is determined by the nature of the work, the risks involved and the duration of the contract.

**Emergency Response Plan.** The procedures to be followed in the event of a serious occupational injury or illness, a fatality, structural failure, fire, oil or chemical spill, or any other emergency. Induction shall cover the emergency alarm, assembly points and evacuation routes for the work location, the round-the-clock Fire Station, and the Port Emergency Number 9924 333 333.

**Fatal5 and other Safety guidelines.** As detailed in previous sections and other applicable safety guidelines.

**Work authorisation system.** The GPPL Work Permit SOP and the contractor's own written permit procedures. All non-routine work shall be carried out under a valid permit. The permit types issued at Port Pipavav are General / Cold Work, Hot Work, Height Work, Excavation, Confined Space Entry, Electrical Work, Bunkering, Vehicle Repair and Diving. Only personnel named in the PTW Authorisation Matrix may apply for, approve or authorise a permit.

**Incident notification.** Recordable injuries and illnesses, near misses, unsafe observations, fire events, asset damage, environmental releases and significant changes to process equipment shall be reported to Port HSE. The supervisor or line manager and Port HSE shall be notified as soon as possible and no later than 12 hours from occurrence, and the event recorded in GIZMO with supporting evidence

within 24 hours. Mobile equipment involved in any incident shall be taken Out of Service immediately, pending investigation.

**Policy on alcohol and drugs.** This policy may include testing, search, and disciplinary provisions that are required by Port Pipavav and contractor.



**APM TERMINALS**  
Lifting Global Trade

# TOGETHER, WE BUILD A SAFER WORKPLACE

A quick recap of what every contractor must uphold every day.

-  **PPE COMPLIANCE**
-  **PERMIT TO WORK**
-  **RISK ASSESSMENT**
-  **HAZARD REPORTING**
-  **EMERGENCY RESPONSE**
-  **TRAINING & INDUCTION**

**YOUR COMMITMENT KEEPS EVERYONE SAFE. FOLLOW. SPEAK UP. GO HOME SAFE.**

# THANK YOU