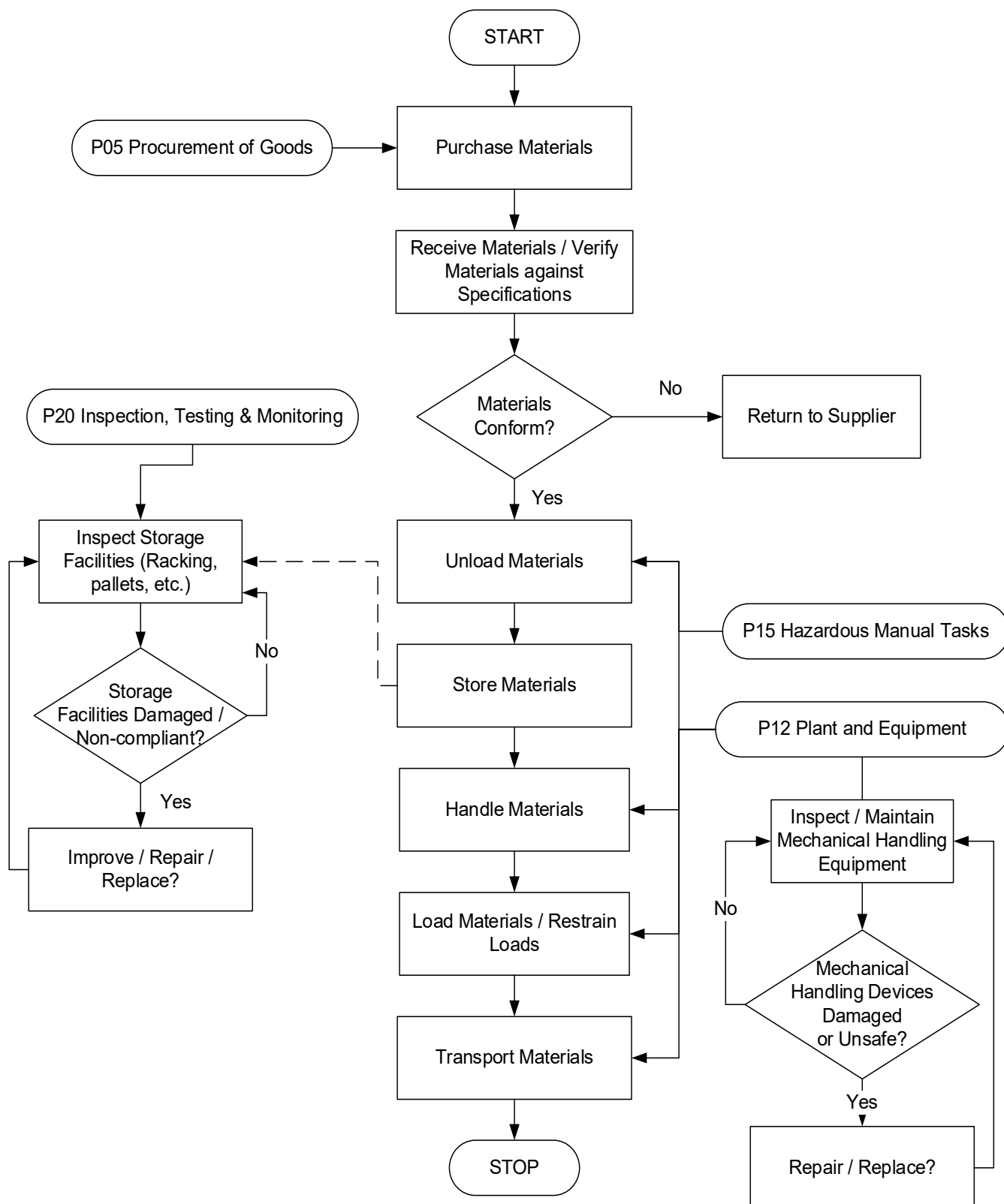


MATERIALS HANDLING

1.0 SUMMARY / FLOWCHART



2.0 RESPONSIBILITY

Organisational Level	Health and Safety Responsibilities
Level 1 (<i>CEO, Directors</i>)	Provide adequate resources to ensure that the requirements of this procedure are implemented.
Level 2 (<i>Section Manager, Unit Manager / Unit Co-ordinator, Project Manager</i>)	Ensure the implementation of the requirements of this procedure and that the implementation is effective.
	Develop and maintain Site Traffic Management Plans, ensuring that ‘high risk’ areas, such as those where materials are delivered, transported, loaded and unloaded are considered and that the interactions between vehicles and pedestrians are minimised.
	Ensure that Site Traffic Management Plans are communicated to workers, including contractors, and visitors, particularly delivery drivers, who are working in material handling areas or who may be impacted by materials handling activities.
	Ensure that work practices involving materials handling are risk assessed.
	Ensure that all records generated as a result of this procedure are properly completed and maintained in accordance with P04 Document Control and Safety Records.
Level 3 (<i>Coordinator within a Unit, Team Leader, Supervisor, Ganger or Leading Hand or Operator</i>)	Ensure that risk assessments on materials handling activities including loading, unloading, load covering and uncovering, are properly completed in consultation with workers.
	Determine whether an observer is required to assist in maintaining visual awareness during the material handling movement where bulky items restrict vision.
	Ensure that materials being moved manually are assessed to determine the number of persons required or whether it is more appropriate to use a mechanical means.
	Ensure that all required inspections and maintenance of material handling and storage equipment is undertaken by competent workers at the scheduled frequencies, and that all identified damage, faults and deficiencies are corrected.
	Ensure that all materials handling and storage equipment is properly marked with maximum working load limits and that these limits are adhered to at all times.
	Develop and maintain Site Traffic Management Plans, ensuring that ‘high risk’ areas, such as those where materials are delivered, transported, loaded and unloaded

	are considered and that the interactions between vehicles and pedestrians are minimised.
	Ensure that Site Traffic Management Plans are communicated to workers, including contractors, and visitors, particularly delivery drivers, who are working in material handling areas or who may be impacted by materials handling activities.
	Ensure that personnel operating materials handling plant and equipment are trained and competent, and licensed where required.
	Supervise workers conducting materials handling activities with the level of supervision determined considering the workers' capability, skills, and experience, and the level of risk associated with the task.
Level 4 (<i>Team Member, Operator Attendant, Trainee, Apprentice</i>)	Ensure that plant and equipment used for materials handling tasks is suitable for the task and operated inside safe working limits.
	Ensure that all workers operating items of plant and equipment are suitably licensed, trained and competent prior to unsupervised use of the plant.
	Conduct materials handling tasks in accordance with safe work practices.
	Maintain currency of licences and/or certificates of competency required for the operation of specified materials handling plant and equipment.
	Comply with all requirements specified within the Site Traffic Management Plan.
	Contribute to the completion of risk assessments and determination of safe work practices in line with consultative arrangements.
Level 5 (<i>Volunteer, Contractor, Other</i>)	Ensure that plant and equipment used for materials handling tasks is suitable for the task and operated inside safe working limits.
	Ensure that all workers operating items of plant and equipment are suitably licensed, trained and competent prior to unsupervised use of the plant.
	Conduct materials handling tasks in accordance with safe work practices.
	Maintain currency of licences and/or certificates of competency required for the operation of specified materials handling plant and equipment.

	Comply with all requirements specified within the Site Traffic Management Plan.
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3.0 PURPOSE & SCOPE

3.1 PURPOSE

- 3.1.1 The purpose of this procedure is to define procedures and processes for the elimination or mitigation of risks, as far as reasonably practicable, arising from the receipt, handling, storage and transport of materials used within Shoalhaven City Council (SCC).

3.2 SCOPE

- 3.2.1 This procedure applies to all of SCC workplaces where materials are receipted, handled, either manually or by mechanical means, stored and transported.
- 3.2.2 Materials handling encompasses the following:
- vehicular movements
 - loading and unloading practices
 - load restraint
 - storage requirements.

4.0 PROCEDURE

4.1 OVERVIEW

- 4.1.1 SCC will manage the risks arising from the receipt, handling, storage and transport of materials utilising a systematic risk management approach as outlined in P10 Risk Management. The following processes are involved:
- 4.1.1.1 the identification of hazards arising from the receipt, handling, storage, and transport of materials
 - 4.1.1.2 the assessment of the health and safety risks resulting from these activities
 - 4.1.1.3 the determination and implementation of suitable risk control measures to minimise risk
 - 4.1.1.4 monitoring and reviewing the effectiveness of control measures.

4.2 RECEIPT OF MATERIALS

- 4.2.1.1 In accordance with P05 Procurement of Goods, all materials procured by SCC, that have health and safety implications, will have these implications reflected within

- the health and safety requirements specified within the purchasing documentation provided to the supplier.
- 4.2.1.2 Conformance to purchasing requirements will be verified upon receipt. Materials determined to conform will be stored and used in accordance with SCC's requirements. Materials found to not conform will be returned to the supplier.

4.3 SAFE STORAGE OF MATERIALS

4.3.1 Steel Racking Requirements

- 4.3.1.1 Steel racking will be designed, installed, inspected and maintained in compliance with legislation and AS 4084: Steel Storage Racking. Racking will also be considered within the general storage risk assessments conducted.
- 4.3.1.2 As outlined in AS 4084, the following is required to be implemented for the safe use of pallet racking or steel storage racking:
- a) The safe working unit load or the safe working total load per bay for the racking installation will be marked on racking and not exceeded.
 - b) The racking installation will not be altered to deviate from the load application and configuration furnished for the racking installation.
 - c) Physical alterations to uprights, bracings, beams or components, such as welding on additional cleats or bearers, will not be made. In addition, change of use, such as from timber pallets to post pallets, will not be permitted.
- 4.3.1.3 Damage to racking, no matter how small, will be immediately reported. Even a small dent or deflection may affect the structural integrity and load bearing capability.
- 4.3.1.4 Racking inspections will be carried out on a regular basis by a competent person, and at least once every twelve months to:
- a) ensure the correct application and use of equipment
 - b) ensure that the safe working loads are adhered to
 - c) ensure that the racking installation has not been altered. A copy of the load application and configuration drawings will be retained for this purpose
 - d) examine the extent of damage due to impact in the racking installation
 - e) examine the out-of-plumb of the racking

- f) examine for any dislocation and deformation of sections and connections for uprights and beams
 - g) examine connectors for deformation or signs of cracking of the welds.
 - 4.3.1.5 Racking inspections will be recorded within a formal report, maintained in accordance with P04 Document Control and Safety Records.
 - 4.3.1.6 Any defects reported as an outcome of racking inspections will be rectified in line with corrective action procedures.
 - 4.3.1.7 Only pallets designed to be used in steel storage racking will be used for this purpose. These pallets lock into the beams of the racking, lessening the likelihood of a pallet falling from racking. Shipping pallets, and the like, will not be used.
 - 4.3.1.8 Damaged pallets will be removed from service, returned to the supplier for refurbishment or disposed of in accordance with SCC requirements.
 - 4.3.1.9 Materials, and other items, stored on racks 3 bays or more high will be wrapped and secured to the pallet, lessening the likelihood of materials and / or pallets falling from racking.
 - 4.3.1.10 The use of the correct pallets, absence of damaged pallets and the wrapping and restraint of materials will be verified through workplace inspections conducted in accordance with P20 Inspection, Testing and Monitoring.
- 4.3.2 Material Storage Devices (other than Steel Racking)
 - 4.3.2.1 Material storage devices will conform to relevant legislative and other requirements, e.g. Australian Standards.
 - 4.3.2.2 All material storage devices required to bear loads, such as stillages and crates, will be marked with safe working loads (SWL). In circumstances where the SWL is unknown, a Structural Engineer's certification will be sought, and the SWL determined by the Engineer displayed. Any Engineer's report regarding load ratings will be maintained in accordance with P04 Document Control and Safety Records.

4.4 SAFE HANDLING OF MATERIALS

- 4.4.1 Manual Handling
 - 4.4.1.1 Manual handling of materials will be undertaken in accordance with the requirements of P15 Hazardous Manual Tasks.
 - 4.4.1.2 Personnel required to manually handle materials will wear the personal protective equipment specified within SCC's

safe work instructions, for example, protective footwear and hand protection (gloves) will be worn when handling steel products.

4.4.2 Mechanical Handling

4.4.2.1 The use of mechanical equipment to move and store materials can increase the risk of injury to workers. Before operating mechanical equipment to handle materials, a risk assessment will be completed in accordance with P10 Risk Management. In particular, consideration will be given to:

- a) the most appropriate mechanical equipment to assist with materials handling;
- b) the load rated capacity (maximum safe working load) of the selected mechanical equipment to avoid overloading; and
- c) traffic management and the provision of controls to ensure pedestrian safety.

4.4.3 Loading / Unloading Materials

4.4.3.1 Forklift Licences

- a) All workers required to operate a forklift at SCC will have the appropriate certificate of competency (licence) in order to operate these vehicles. The certificate of competency is assessed and issued by a registered training organisation.
- b) Forklift operators have the responsibility of ensuring that their licence is renewed as specified by SafeWork and evidence of renewal will be provided to SCC.
- c) Any incident, near miss or unsafe operation associated with the use of a forklift will necessitate refresher training in forklift operation. Inappropriate behavior with regards to the use of forklifts may necessitate the suspension to operate a forklift.

4.4.3.2 Forklift Inspections

- a) At the start of each day or shift, a pre-operational check of the forklift will be completed by the worker taking responsibility of the forklift.
- b) The following items are to be inspected before use:
 - i. vehicles are to be visually checked for battery corrosion and any obvious loose parts or materials, reversing alarms are to be functional and mirrors adjusted; all breakages and non-functioning parts are to be reported as soon as possible;

- ii. steps and working platforms are free of any material that could cause potentially serious slips and falls;
- iii. all guards are in place and any power take-off drives are properly guarded with a fixed guard;
- iv. seatbelts are in good working order; and
- v. warning lights and beepers are operational.
- c) Operation of Forklifts
 - i. Only use a forklift and any attachments for the purpose for which they were designed. Dangerous work practices include bumping pallets, pushing piles of material out of the way, moving heavy objects by using makeshift connections and attachments.
 - ii. Wear a seat belt.
 - iii. Obey speed limits and stop signs. Drive at speeds suitable to surfaces and traffic conditions.

4.4.3.3 Loading Vehicles

- a) Vehicles are not to be overloaded and loads are to be appropriately restrained in accordance with SCC and RMS guidelines.

4.4.3.4 Unloading Vehicles

- a) When opening doors, gates, sides and side curtains and when removing lashings and tarpaulins take care that loads that may have shifted during a journey, do not dislodge and cause injury.
- b) When releasing the tension in lashings, be careful of any sudden uncontrolled movement of handles, cheater bars, sharp steel strapping and hooks on lashings and elastic straps.
- c) Forklift operations are a major cause of injury to drivers and loaders. When a vehicle is being loaded or unloaded by forklift, make sure that you are always in full view of the forklift driver. Do not approach a forklift whilst it is moving. Do not stand or work on one side of the vehicle if the other side is being loaded or unloaded. Part of the load may be pushed onto you during the loading or unloading operations.

4.5 TRANSPORTING MATERIALS

- 4.5.1 SCC operates a fleet of vehicles used to transport materials and items of plant and equipment.
- 4.5.2 It is the responsibility of the driver to ensure the following:
- the vehicle used is suitable for the type of load
 - the load is properly positioned and restrained
 - the load does not exceed weight, height and width restrictions
 - the load is covered, if necessary, and will not result in the unexpected discharge of any item or material during travel including spoil.
- 4.5.3 Additional consideration will be given to safe loading and unloading and security before, during and after travel. All drivers will be competent to undertake any driving duties.
- 4.5.4 Pre Start Checks
- 4.5.4.1 Prior to using vehicles, trailers and other materials transportation equipment workers responsible for the item/s of plant and equipment will carry out a visual inspection; the outcomes of this inspection will be documented on the appropriate plant /equipment pre-start checklist.
- 4.5.4.2 If a fault is identified that requires mechanical services personnel, the plant and equipment will be tagged out of service and reported to the appropriate supervisor or mechanical service personnel.
- 4.5.5 Licences and Registration
- 4.5.5.1 All plant and equipment requiring registration will be registered with the appropriate authority in accordance with relevant legislative requirements and P12 Plant and Equipment.
- 4.5.5.2 Where the operation of material transportation equipment is restricted to licensed operators, SCC will ensure that operators are licensed and licences are maintained.
- 4.5.6 Load Capacities
- 4.5.6.1 All vehicle weights including GVM and tare weights will be displayed to allow all drivers the necessary information to safely load and tow within the prescribed capacities.
- 4.5.6.2 Fleet Management will be responsible to have new vehicles and trailers checked for their accurate weights such as GVM and GTM against the completed pre purchase risk assessment prior to vehicle handover.
- 4.5.7 Towing Equipment

- 4.5.7.1 Towing vehicles will be properly equipped with towbars and couplings of a suitable type and capacity, electrical sockets for lighting and brake connections if the trailer is fitted with power or electric brakes.
- 4.5.7.2 The towbar should not be underneath the vehicle and be clearly and permanently marked with the following:
 - a) Maximum rated capacity.
 - b) Make and model of the vehicle it is intended for, or
 - c) the Manufacturer's part number, manufacturer's name or trade mark.
- 4.5.7.3 Towbars will not protrude dangerously when not connected to a trailer or similar.
- 4.5.7.4 All couplings will be of the required capacity and will be permanently marked with the manufacturer's name or trade mark and rated capacity.
- 4.5.7.5 Couplings will be equipped with a positive locking mechanism. The locking mechanism will be able to be released regardless of the angle of the trailer to the towing vehicle.
- 4.5.7.6 Coupling systems on SCC plant are comprised of the following:
 - a) 50mm tow ball and corresponding tow hitch (coupling body).
 - b) Ring Feeder Box and associated tow hitch ring.
 - c) Ring, Tow ball combination and associated tow hitch ring.
- 4.5.8 Load Restraint
 - 4.5.8.1 Loads will be restrained in accordance with SCC's and RMS guidelines.

4.6 LOAD RESTRAINT AND LIFTING EQUIPMENT

- 4.6.1 Routine purchases of load restraint and lifting gear will be arranged through the Supply Team, but Supervisors may make urgent purchases, if necessary, provided the gear meets Australian Standards for quality and rated capacity, and is marked accordingly.
- 4.6.2 Immediately before use, load restraint and lifting gear will be inspected for wear and damage; for safe working load tag, and for chain grade markings.
 - 4.6.2.1 Synthetic ropes – every metre of rope will be inspected, and be replaced, if it is weakened by more than 10% of its original breaking strength by wear or mechanical damage; exposure to chemicals; exposure to high temperatures; and prolonged exposure to sunlight. Damage can be recognised by the hairy appearance of the fibres.

- 4.6.2.2 Flat Webbing and Webbing Assemblies – will be replaced, if SWL tag is missing, if it is weakened by more than 10% of its original breaking strength by wear or mechanical damage; exposure to chemicals; exposure to high temperatures; and prolonged exposure to sunlight. Webbing repaired in a manner not approved by the manufacture will be replaced. Damage can be recognised by the furry appearance of the webbing, together with cuts and abrasions.
- 4.6.2.3 Chains and Chain Assemblies – will be replaced if chain grade markings are illegible, if any link, weakened by wear, is reduced by more than 10% of its original diameter; if any link is bent twisted, stretched or collapsed; if any link is repaired, except when approved by the original manufacturer; if any chain has a knot in it; if any assemblies are weakened or prevented from functioning.
- 4.6.2.4 Flexible Steel Wire Rope – will be replaced if any rope length equivalent to 8 rope diameters contains more than 10% broken wires of the total number of wires; if any rope is reduced by more than 10% of its original diameter; if any rope is crushed or flattened more than 15% of its nominal diameter; and if any rope is significantly notched, kinked, stretched or unravelled (“birdcaged”).
- 4.6.2.5 Load restraint and lifting accessories – will be replaced if reduced by more than 10% of their original diameters; and for hooks, if the throat opening is more than 5% of the original throat opening.
- 4.6.3 Annual Inspection
 - 4.6.3.1 All load restraint and lifting gear will be inspected, and recorded, annually.
 - a) Qualifications of inspector – the annual inspection will be performed by the holder of a Certificate of Competency – Dogging, or equivalent relevant qualification.
 - b) Responsibility – Supervisors of workers responsible for load restraint and lifting gear will arrange the annual inspection and schedule the inspection in COITS.
 - c) Record of Inspections – The Load Restraint and Lifting Gear Inspection Record, or similar, will be used and kept by the supervisor.

4.7 TRAINING

4.7.1 SCC will provide training to relevant workers required to receipt materials, handle, store or transport materials.

4.7.2 Training will be provided in accordance with P09 Safety Training.

4.8 RECORDS

4.8.1 All records generated as a result of the operation of this procedure will be maintained in accordance with the requirements of P04 Document Control and Safety Records.

5.0 REFERENCES & ASSOCIATED DOCUMENTS

5.1 Work Health and Safety Act 2011

5.2 Work Health and Safety Regulation 2017

5.3 How to manage work health and safety risks: Code of practice 2019

5.4 Hazardous manual tasks: Code of practice 2018

5.5 National Standard for Manual Tasks 2007

5.6 NSW Government Heavy Vehicle Driver Handbook (04/22)

5.7 Towing Trailers Things You Should Know - NSW Government – Transport for NSW

5.8 AS 4177 Caravan and light trailer towing components

5.9 AS/NZS 4344 Cargo Restraint Systems - Motor vehicles - Cargo Restraint Systems - Transport Chain and Components

5.10 AS/NZS 4380 Motor vehicles - Cargo Restraint Systems - Transport Webbing and Components

5.11 AS/NZS 4345 Motor vehicles - Cargo Restraint Systems - Transport Fibre Rope

5.12 AS/NZS 4384 Motor vehicles - Anchorages and AS/NZS 4384 anchor points for securing internal cargo

5.13 AS/NZS 4034 Motor Vehicles - Cargo Barriers for Occupant Protection (Parts 1 & 2)

5.14 AS 4084 Steel Storage Racking

5.15 RMS Vehicle Standards Information 5 – Vehicle Dimension Limits 2007

5.16 Load Restraint Guide – National Transport Commission of Australia 2018

5.17 P04 Document Control and Safety Records

5.18 P09 Safety Training

5.19 P10 Risk Management

5.20 P20 Inspection, Testing and Monitoring
APPENDIX 1 DEFINITIONS

Competent Person	Means a person who has acquired through training, qualification, or experience, or a combination of these, the knowledge and skills enabling that person to perform the specified tasks.
Certificate of Competency - Dogging	A certificate issued by SafeWork acknowledging that the holder has met national competency standards in dogging.
Dogging	The application of slinging techniques, the selection and inspection of lifting gear and the directing of a crane operator or hoist operator in the movement of a load.
GCM	Gross Combination Mass – The loaded weight of an articulated vehicle or combination vehicle.
GTM	Gross Trailer Mass – The mass on the axle(s) of a trailer when fully loaded.
GVM	Gross Vehicle Mass-The loaded weight of a rigid vehicle.
Hazardous Manual Tasks	<p>A hazardous manual task as per the Work Health & Safety Regulations means a task that requires a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing involving one or more of the following:</p> <ul style="list-style-type: none"> • repetitive or sustained force • high or sudden force • repetitive movement • sustained or awkward posture • exposure to vibration.
Load Restraint	Method of restraining loads to ensure load security.
Load Restraint Gear	Equipment used to restrain loads on vehicles or trailers and includes ropes, webbing, strapping, nets, chains, and attachments such as hooks, clamps, turnbuckles, tensioners, ratchets and winches.
Lifting Gear	Equipment used to lift loads and includes flexible steel wire ropes, chains, flat webbing and synthetic slings and attachments such as hooks, rings, spreader beams, shackles, eyebolts, swivels and turnbuckles.
Manual Tasks	A task comprised wholly or partly by any activity requiring a person to use his or her musculoskeletal system in performing work and can include the use of force for lifting, lowering,

	<p>pushing, pulling, carrying or otherwise moving, holding or restraining any person, animal or item.</p> <p>Manual tasks cover a wide range of activities including stacking shelves, working on a conveyor line and entering data into a computer.</p>
Musculoskeletal Disorder (MSD)	<p>A musculoskeletal disorder (MSD), as defined in the WHS Regulations, means an injury to, or a disease of, the musculoskeletal system, whether occurring suddenly or over time. It does not include an injury caused by crushing, entrapment (such as fractures and dislocations) or cutting resulting from the mechanical operation of plant.</p> <p>MSDs may include conditions such as:</p> <ul style="list-style-type: none"> • sprains and strains of muscles, ligaments and tendons • back injuries, including damage to the muscles, tendons, ligaments, spinal discs, nerves, joints and bones • joint and bone injuries or degeneration, including injuries to the shoulder, elbow, wrist, hip, knee, ankle, hands and feet • nerve injuries or compression (e.g. carpal tunnel syndrome) • muscular and vascular disorders as a result of hand-arm vibration • soft tissue hernias • chronic pain.
Tare Weight (Mass)	Tare Mass – The mass of a vehicle without its load.
Unladen Mass	The mass of a motor vehicle without a load, but including all tools, fixed cranes, oil and fuel in the tanks.