



safe work australia

Working Safely with General Cargo – Steel Products



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Introduction

The waterfront provides a critical link in the distribution of traded goods internationally and within Australia. Stevedoring is a major link in the waterfront chain.

It is recognised that considerable efforts and advances have been made by companies, workers* and workers' representatives to improve safety in recent years, including the development and implementation of relevant safety management systems.

Despite all the achievements, and although large volumes of information on occupational health and safety (OHS) are available to the industry, both domestically and internationally, the way it is applied in the working environment of stevedores varies. Therefore, the continued importance of robust and effective health and safety risk management in this environment cannot be understated.

This publication was originally developed by WorkSafe Victoria in collaboration with the Maritime Union of Australia (MUA), the Australian Maritime Safety Authority (AMSA), shipping agents and stevedoring companies. Safe Work Australia and a technical working group, made up of representatives from the state and territory authorities, the MUA, AMSA and the stevedoring industry, have worked together to adapt the WorkSafe Victoria material for use nationally.

This guide should be read in conjunction with Marine Orders Part 32 and the International Labour Organization (ILO) *Code of Practice on Safety and Health in Ports*.

The stakeholders involved in the development of *Working Safely with General Cargo – Steel Products* agreed that activities involved in discharging and loading general cargo pose significant risks to the health and safety of workers.

Given the number of fatalities and serious injuries while handling steel products, it was agreed that this would be the first area addressed.

This guide focuses specifically on the handling of steel products and provides a range of options to address identified risks. It sets out what compliance could look like for a range of issues identified by stakeholders.

Comparative charts

The comparative charts in this guide provide summaries of identified hazards and assessments of the risks associated with particular stevedoring work practices.

The green, amber and red format helps identify high-risk practices so person/s conducting a business or undertaking, or anyone in control of a workplace or work practice can implement safer work practices. The rationale for this is that to reduce injury rates and compensation claims, high-risk situations must be addressed.

***worker**, is a person who carries out work in any capacity for a person conducting a business or undertaking; including work as an employee, as a contractor or sub-contractor, as an employee of a contractor or sub-contractor, as an employee of a labour hire company who has been assigned work in the person's business or undertaking, as an outworker, as an apprentice or trainee, as a student gaining work experience, or as a volunteer. The person conducting the business or undertaking is also a worker if the person is an individual who carries out work in that business or undertaking.

Companies whose work practices fall into the red high-risk column are likely to be in breach of legislation. More significantly, they are placing the health and safety of their workers in jeopardy.

If high-risk practices are used, person/s conducting a business or undertaking, or anyone in control of a workplace or work practice should determine whether it is possible to implement the practices in the green low-risk column immediately. If that is not reasonably practicable (see page 9 of *Working Safely on the Waterfront*, 2009), the comparable practices in the amber medium-risk column should then be put into place. Generally, medium-risk practices only provide an interim solution. The green low-risk solutions reflect good practice.

However, the risk controls listed in the green low-risk column are not exhaustive. If person/s conducting a business or undertaking, or anyone in control of a workplace or work practice can demonstrate that an appropriate risk assessment process has been undertaken, and can verify that the ‘reasonably practicable’ test has been applied to the controls to be implemented, then control measures falling within the amber medium-risk range may well be justified as the only reasonably practicable solutions given the circumstances.

Often, a range of controls may be required to achieve the best solution. For instance, in stevedoring the environment is constantly changing and it may be impossible to implement one control to address all circumstances that may arise during the course of the work. While the practices in the green low-risk column may be the optimum solutions, in effect, a range of controls supported by an appropriate OHS management system (e.g. planning procedures, training and supervision) may be necessary to arrive at the best and safest way to undertake the work.

**A COMBINATION OF CONTROLS
OFTEN GIVES THE BEST
SOLUTION**

RED (HIGH-RISK)	AMBER (MEDIUM-RISK)	GREEN (LOW-RISK)
The practices in the red column should not be used in workplaces; person/s conducting a business or undertaking who allow these practices to be used are likely to be in breach of OHS legislation	The practices in the amber column are less effective in reducing risk, as compared to the green column, and would generally be treated as interim solutions	The practices in the green column are the most effective in reducing risk and should be regarded as the target for all workplaces

Vessel/work environment inspections

Inspections should not be a ‘one-off’ activity (e.g. at the commencement of a shift or process) as working conditions are constantly changing and frequently unpredictable. It is important to regularly inspect the working environment for new hazards and assess the ongoing suitability of work processes. Inspections should be conducted when a ship arrives at port, prior to work commencing and intermittently throughout the discharge process as working conditions change.

Inspections promote:

- learning opportunities
- shared experiences and opportunities to collectively identify solutions
- collaboration
- better communication tools
- increased knowledge across levels
- an understanding of issues by all affected parties, and
- an organisational focus on achieving good safety outcomes.

It is important that the right people, such as supervisors or foremen and Health and Safety Representatives (HSRs), are given the opportunity to be involved in inspections as appropriate. Depending on the circumstances, other personnel including the Ship’s Master, a member of the crew, or a person with particular skills, may be invited to participate in the inspection process.

A pre-work inspection regime will assist in identifying issues associated with the type of vessel and cargo, cargo presentation, the condition of a ship’s equipment and gear, supervisory requirements, the characteristics of the work team, weather conditions, the time of day, and length of shift. These issues may impact on the ability to do a task safely. However, pre-work inspections will not identify issues that may arise over the entire process of discharge or loading.


Checklist to support the inspection process

The *Vessel/Work Environment Checklist – Steel Products* (Checklist Two) identifies a range of hazards that occur in all areas of stevedoring relating to working safely with general cargo and, in particular, steel products.

Using Checklist Two

Checklist Two, specific to steel product discharge and loading activities, is included in this guide. It is suggested that this checklist is used to supplement the general *Vessel/Work Environment Checklist – General OHS Issues* (Checklist One). The comparative charts in this guide provide detailed information on what compliance could look like. These will also assist in the use of both checklists.

Checklist Two may be used without modification. However, where necessary, this checklist should be adapted to



suit the particular circumstances of a workplace. Checklists that are already in place may continue to be used if they address all potential hazards in that particular workplace.

‘Close the loop’ to achieve sustainable change

It is extremely important to have a process in place that ensures issues identified during the inspection process are resolved within appropriate timeframes.

It is also important that a process is in place that ensures unresolved issues and interim or temporary fixes are escalated to the appropriate level of management for a decision on the appropriate course of action. This includes referrals to third parties such as other jurisdictions or forward ports.

COMPARATIVE CHART – ENVIRONMENT

Vessel type, condition and equipment

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No planning by shipping agent for type of vessel and/or cargo, resulting in incorrect vessel for type of cargo	Plan to assess load/unload conditions prior to arrival at dock (provided by shipping agent)	Vessel selection allows appropriate stowage and optimises cargo presentation
No, or inadequate confirmation of vessel compliance to required standards (Marine Orders and International Labour Organization (ILO) <i>Code of Practice on Safety and Health in Ports</i>)		Eliminate risk of poor cargo presentation by selecting the most appropriate vessel for known cargo types
No inspection of vessel and cargo presentation prior to work commencing		Inspection of vessel (on arrival) prior to work commencing to identify discharge/load requirements
No escalation of issues identified as requiring attention/correction in regard to ship's equipment or vessel condition	Equipment/vessel issues escalated but not followed up and corrected	Issues escalated to third parties in supply chain (e.g. agents, lines, other authorities) so they can be corrected, and records kept
		Refusal to discharge vessels that have recurring issues

Cargo presentation

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No consideration of presentation prior to commencing discharge	Cargo plan communicated and considered in pre-work inspection regime	Ship's cargo/stowage plan available and used during discharge/load planning
No communication to other ports on the condition of cargo	Communication between ports on stowage issues and re-stows	Unresolved issues escalated to third parties so they can be corrected, and records kept
Inspection of work environment not completed prior to commencing work	System of verbal communication of issues identified (no documented record)	Vessel/work environment inspection prior to work commencing identifies requirements for discharge
Discharge plans altered at preceding port, impacting on accuracy of plan provided to subsequent ports	Load/unloading requirements specified and advised to forward port	Job Safety Analysis (JSA), Safe Work Instruction (SWI) and risk assessment of requirements for new load with relevant and trained operators
Alterations to discharge plan not considered prior to undertaking discharge	Documented forward communication of cargo/vessel condition	Intermittent inspections undertaken and relevant actions implemented
Snagged loads requiring manual/awkward force and postures to dislodge	Identification of appropriate gear and practices used to dislodge snagged loads	Cargo presentation and stowage techniques ensure no snagging of loads
Cargo has shifted as a result of conditions during transit		

Weather conditions *e.g. temperature*

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No pre-work vessel/work environment inspection		Assessment considers requirements of conditions and individual workers*, and appropriate Personal Protective Equipment (PPE) provided
No consideration of changes in weather conditions and their impact on ability to undertake tasks		Assessment considers requirements for breaks, shelter and PPE
		Bureau of Meteorology (BOM) contacts identified, and maps provided and utilised for work planning
No PPE provided or records kept of maintenance	Ad-hoc provision and maintenance of PPE and gear	Records kept of issue and maintenance of PPE
Inadequate PPE	No supervision in the use of PPE	Supervision of workers* using issued PPE

*See page 26.

Lighting

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No inspection to identify lighting requirements including environmental factors	Consideration of environmental conditions in determining lighting levels required for the task	Pre-work and task specific vessel/work environment inspections identify lighting requirements, and lighting levels adjusted accordingly, particularly in order to achieve the minimisation of shadows

Lighting levels do not meet minimum requirements of International Labour Organization (ILO) *Code of Practice on Safety and Health in Ports*



Lighting levels are suitable for the task being performed and achieve at least the minimum standard as per ILO *Code of Practice on Safety and Health in Ports*:

- working areas = 50 lux
- access routes = 10 lux

Noise

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No assessment of noise exposure	Noise assessments undertaken and results documented	Controls in place that eliminate exposure to noise as far as reasonably practicable
	Hearing tests provided in accordance with Australian Standards	
No provision of appropriate Personal Protective Equipment (PPE)	PPE (as per AS 1270:2002) issued based on results of noise assessments	Hearing protection inspection and replacement regime documented
		The correct use of hearing protection is monitored on an ongoing basis

Traffic management/common user facilities

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No control/management of interaction between powered mobile plant and people	Assessment of requirements for work undertaken in close proximity to powered mobile plant considers all options for separation of people and plant. Interim controls implemented	Risk assessment conducted and permanent controls/practices for necessary interaction of workers* and powered mobile plant implemented and strictly enforced through procedures and supervision
	Sequence planning of delivery and loading/discharge activities	Use of traffic management technology (e.g. proximity sensors, speed limiters)
		Robust traffic management plans that consider the reduction of collision risks are in place
No consideration of travel surface conditions		Well maintained travel surfaces
No separation of people from moving or fixed plant and equipment	Exclusion zones without physical barriers	Physical separation of people from moving or fixed plant and equipment
	Training and supervision to achieve separation of people and equipment	
No contractor management system and contractors unsupervised while on site	Escort of contractor vehicles and supervision of contractors while on site	Documented system of induction, training, assessment and endorsement of contractors to permit controlled contractor movement on site
No established protocols between Common Users (e.g. stevedoring/marshalling companies that are working on the same wharf apron and/or vessel)	Documented process indicating communication/protocols have been established between Common Users working the same wharf apron and/or vessel	Robust traffic management plans are established between all Common Users, (e.g. stevedoring/marshalling companies that are working on the same wharf apron or vessel) Plans that consider the reduction of collision risks are in place

*See page 26.

Housekeeping

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No monitoring or management of housekeeping	Housekeeping system in place but no ongoing monitoring to ensure it is maintained at all times	Sustainable system of housekeeping in place
		Walkways free of protrusions
Cables, dunnage, lashings and other loose items on floors and walkways in work area		Designated storage areas for loose items
Slip hazards caused by residue build-up or wet/greasy decks and walking surfaces (vessel and port side), etc.		No residue build-up (leading to slips) on walkways, gangways, hand rails, etc. Areas kept clean and free of waste
		Appropriate non-slip solutions are in place for wet deck risks
Inadequate or no checks to ensure clear, unobstructed work areas and floors		Inspections address walkways and access ways to ensure they are kept clear and free of obstructions
Debris left from previous discharge/load operations		Bins for waste readily available

Access and egress

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No assessment of requirements for safe access and egress	Assessment of requirements undertaken, but inadequate follow-up	Pre-work inspection identifies access/egress requirements and appropriate provisions for access/egress made
Temporary access used even where fixed gear is available and identified as preferred method		Two means of access/egress to each cargo compartment for ships built on/after 1 August 1998 (except ships used exclusively as bulk carriers or as cellular container ships)
Dedicated access provisions not used		
Access platforms not appropriate for task		
Gangways not properly rigged in accordance with Marine Orders parts 21 and 32		Procedures to ensure gangways remain properly rigged at all times
Damaged hand rails, ladders, etc.	Temporary repairs to damaged handrails to enable safe working. Report to the Australian Maritime Safety Authority (AMSA) if permanent repairs not undertaken prior to departure	Gangways, walkways and hand rails in good repair and free from obstructions
No clear access to gangways and walkways		
Extension, portable or vertical ladders are not used in accordance with Marine Orders Part 32		Fixed ladders and work platforms used in accordance with Marine Orders Part 32 Regular maintenance to ensure gangways, walkways and hand rails are free from residue build-up

		Temporary installations (e.g. portable ladders) used in accordance with Marine Orders Part 32
		Personnel access lids secured in open position
Hinged hatch covers not mechanically locked when open		Hinged and pontoon hatch covers mechanically fixed in open position as per Marine Orders Part 32 (or removed if not adequately secured)

Suspended loads *falling*

HIGH-RISK	MEDIUM-RISK	LOW-RISK
Working directly under loads being lifted or lowered, or under path of travel, or in vicinity of path of travel	Use of exclusion zones to separate personnel from areas where loads are being lifted or lowered, or away from path of travel	Inspection prior to work commencing identifies issues, and plans to address requirements are developed and implemented
		Personnel physically isolated from areas where loads are being lifted or lowered, or away from path of travel

Work at height

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No assessment of risk for working at height (e.g. on top of coil/wire or where gaps are created during discharge)		Discharge/load planning/inspection process eliminates fall risks where reasonably practicable
		Use of appropriate temporary access platforms (e.g. stages)
		All openings where there is risk of a fall from height are enclosed or protected with high visibility rigid vertical and horizontal physical guarding
No implementation of appropriate controls (e.g. fall arrest/restraint gear, platforms, cages, edge barriers)		Fall arrest/restraint systems implemented for any work at height (e.g. within hold of vessel)

Contaminated or oxygen-deficient atmosphere

HIGH-RISK	MEDIUM-RISK	LOW-RISK
Use of combustion-powered plant or equipment in absence of regular maintenance regime	Use of combustion-powered plant or equipment with documented inspection and regular maintenance undertaken	Combustion-powered plant or equipment not used in restricted areas (e.g. electric forklifts used)
Vehicles or appliances powered by internal combustion engine used in a cargo space during loading or unloading that do not comply with provision 9.1.7 of the International Labour Organization (ILO) <i>Code of Practice on Safety and Health in Ports</i>	Use of vehicles or appliances powered by internal combustion engine that comply with provision 9.1.7 of the ILO <i>Code of Practice on Safety and Health in Ports</i>	Natural or mechanical ventilation prevents accumulation of harmful concentrations of gases, fumes and vapours
		Inspection regime identifies areas where interaction of powered plant or equipment could lead to build-up of contaminants
		Inspection regime identifies requirements for Personal Protective Equipment (PPE)
No provision of appropriate respiratory equipment and other PPE		Documented system of issue and maintenance of respiratory equipment and other appropriate PPE
No assessment of possible contamination and testing of atmosphere prior to work commencing		Oxygen-deficient atmosphere detection system to check the quality and safety of the atmosphere and to identify possible loss of containment of hazardous substances or dangerous goods from containers
No risk assessment for release of contaminants from containers		Programmed and/or periodic testing of atmosphere by suitably qualified person

Storage techniques and procedures

STEEL PRODUCTS

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No assessment of requirements for securing coils	Varying weights/dimensions of coil to be stacked	Assessment of storage surfaces, coil reel diameter and coating determines storage method and selection of securing method (e.g. sand base, racks, chains)
	Coils in stack manually chocked/wedged	All coils in stack have same dimensions
	Staggered stacking	Coil single stacked
		Individual coil locations and racking system
		Load bearing capacity of floors known and communicated
Wedges/chocks not fit for purpose	Correct fatigue factor used when selecting hardwood chocks	
Wedges/chocks used without physical restraint of coils at end of stack/row	Fixed chocks at ends of walkways	Coil end stops used in vicinity of pedestrian walkways
		Coil collapse arrest system used in vicinity of amenities or offices
		Safe pedestrian zones used and enforced

GENERAL CARGO

HIGH-RISK	MEDIUM-RISK	LOW-RISK
Using hands to place dunnage under loads	Correct placement of dunnage (vertical and horizontal) using push sticks	System to control dunnage use and placement in vessel
Hands/limbs under loads during glutting		
Dunnage selection and placement does not ensure safety of stow for discharge purposes		Selection of dunnage ensures safe and efficient stow and prevents dislodgement of stow in transit

COMPARATIVE CHART – COMMUNICATION

Emergency procedures

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No assessment of requirements for the type of vessel (personnel, gear, procedures, emergency contacts, etc.)	Assessment of requirements to ensure availability of correct gear for working environment (e.g. temporary access ladders)	Inspection of work environment prior to work commencing to determine emergency requirements
No supervision and no enforcement of requirements	Workers* unaware of procedures, and reliance on supervision	Documented system for induction and training (including updates/changes) that is task and environment specific (e.g. confined spaces, areas with limited/restricted access, special equipment, gear)
No refresher training		Emergency plan identifies workers* and addresses communication with designated authorities (including access/egress for emergency services in event of obstructed access)
		Emergency procedures consider impact and information requirements for other workplaces, public, etc. in addition to site requirements
No assessment for addressing language requirements (e.g. with ship's crew)		Language requirements factored into pre-work inspection regime
No backup communication in case of failure of primary system	Primary communication system available and implemented Roles and responsibilities assigned and communicated	Backup communication system exists and all affected workers* trained in its use

*See page 26.

COMPARATIVE CHART – EQUIPMENT

Lifting appliances

HIGH-RISK	MEDIUM-RISK	LOW-RISK
Does not comply with Marine Orders Part 32		Complies with Marine Orders Part 32
No system of inspection to ascertain fitness for use prior to work commencing		History of ship-board cranes provided and any issues corrected prior to use
Poor condition of ship-board cranes	Ship's gear or shore-based equipment modified to suit work task where issues are identified ('work around')	System to inspect ship's gear based on frequency of visit and availability of verified history of equipment
	Equipment modifications/work arounds to enable safe use for load have been risk assessed, approved and process documented	Appropriately tested and serviced equipment available
No system for regular planned maintenance of shore-based equipment	One-off inspection with no follow-up or correction of identified issues	Log books for individual items of equipment maintained and available for pre-work inspection purposes

Loose gear for lifting of product *jigs, hooks, slings, chains, specialised handling systems, etc.*

HIGH-RISK	MEDIUM-RISK	LOW-RISK
Does not comply with Marine Orders Part 32		Complies with Marine Orders Part 32
Slings and lifting gear in poor or unsatisfactory condition	Informal inspection of wear and tear in gear	System of inspection by qualified person (e.g. consultant) maintained and documented
		Inspections done prior to use of all gear, and damaged gear removed from service
		Pre-operational inspections and checks as part of general inspection regime
Use of lifting gear (including specialised handling equipment) without complete service history or verification of Safe Working Load (SWL)/Working Load Limit (WLL)		Auditable system of certification, rated SWL/ WLL, and service history available for pre-slung loads
		Gear register for land-based equipment maintained by stevedoring company
		Gear register for vessel equipment maintained by Ship's Master
		Log books detailing history of issues available for all plant and equipment (e.g. forklifts, straddle cranes, portainer cranes, reach stackers) and reviewed as part of pre-work inspection
		Log books recording history of foreign ships and ship's equipment maintained by local stevedores and reviewed as part of inspection process
		Log books for local vessels and ship's gear maintained and kept on board ship for review by local stevedores as part of pre-work inspections
		Agent supplies information prior to ship arrival

Load bearing equipment or load lifting equipment is of unknown capacity or in poor condition (e.g. chains stretched, hooks defective, sensors not operating)		Gear only used with reference to marked Safe Working Load (SWL)/Working Load Limit (WLL) (not to be based on colour coding)
Work under cargo handling equipment (e.g. spreader bars) during the raising, lowering or any other movement of the equipment	Work under cargo handling equipment (e.g. spreader bars) during attachment of chains to load only when equipment is in position and stationary and with appropriate supervision to ensure safety of work	Selection of load shifting/bearing equipment is appropriate for the task, (e.g. spreader bars'/beams' attachment points match number of items to be attached)
Selected lifting/slinging method fails to eliminate risk of load slipping if load tilts or shifts at an angle during loading/discharge (e.g. when the correct spreader gear is not being used)	Where selected lifting method does not achieve positive grip on entire load, the process used to establish that the method is <u>the best</u> practicable under the circumstances can be demonstrated (e.g. slab or structural steel loading where all pennants and slings must take equal strain and/or where the lift must be kept flat)	Selected lifting method ensures positive grip on entire load throughout loading/discharge (e.g. double wrap or single choke with sliding ring)
	Systems implemented to ensure no personnel in the vicinity of the lift at any time, supported by appropriate supervision to ensure safety of work	Systems implemented to ensure no personnel in the vicinity of the lift at any time, supported by appropriate supervision to ensure safety of work
Non-compliance with requirements for use of specialised handling systems as required by Marine Orders Part 32	Minimum compliance with Marine Orders Part 32 for use of specialised handling systems (e.g. lifting loops)	Specialised handling systems used only where full history of use and number of lifts undertaken since manufacture available, OR
Lifting by specialised handling systems without full history of use being available and assessed		If specialised handling equipment information is not available, then loads are raised to 0.5–1 metre and re-slung using appropriately rated and certified gear
Equipment to prevent body parts being placed under loads not available or not used		Use of equipment (e.g. push-sticks and pull-throughs) ensures no part of body placed under load being lifted

Loose gear for storage, stowage, or securing of product

HIGH-RISK	MEDIUM-RISK	LOW-RISK
Dunnage selection inappropriate for type of cargo	Correct fatigue factor used for hardwood dunnage or chocks	Documented system of inspection and maintenance of gear
Wedges/chocks not fit for purpose	Informal inspection of wear and tear in gear	Equipment is serviceable, adequate for the load and able to be used safely
No system to identify wear and tear in gear (e.g. worn chocks) or to ensure replacement		System to repair or dispose of non-conforming items

COMPARATIVE CHART – PERSONNEL

Fatigue

HIGH-RISK	MEDIUM-RISK	LOW-RISK
<p>On-call shift notification does not provide for adequate</p> <ul style="list-style-type: none"> time between shifts fitness for duty notice of shifts 		<p>Fatigue management plan developed and implemented, taking account of:</p> <ul style="list-style-type: none"> work demands scheduling and planning working time environmental conditions individual factors
<p>No assessment of requirements for workers* (e.g. numbers, work history) for shifts and specific tasks</p>		

*See page 26.

Induction and training

HIGH-RISK	MEDIUM-RISK	LOW-RISK
<p>No assessment of worker* competency requirements and requirements for maintenance of skills</p>		<p>Workers'* capabilities assessed, and training plan developed and implemented</p>
		<p>Certification of competency to operate plant and equipment, and reassessment (as per legislated requirements)</p>
		<p>Assessment of skills and knowledge</p>
<p>No formal induction provided prior to commencing work</p>	<p>Sole reliance on supervision</p>	<p>All workers* inducted using specific induction program</p>

*See page 26.

Supervision

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No supervision or supervisors required to manage workers*. Workers* are without adequate training, support and resources		Supervisors trained and supported by management to ensure safety takes priority over production
No system to ensure supervisors have necessary skills and knowledge before taking on supervisory responsibilities		Competent operators mentoring new workers*
		Management provides visible presence and support to supervisors

*See below.

Contractors

HIGH-RISK	MEDIUM-RISK	LOW-RISK
No consideration of contractor-specific requirements in induction and supervision system		Documented contract management procedures in place, enforced and audited
		Contractors inducted using specific induction program
		Key Performance Indicators (KPI) for safety included in contracts
		Certification of competency to operate plant and equipment, and reassessment (as per legislated requirements)

***worker**, is a person who carries out work in any capacity for a person conducting a business or undertaking; including work as an employee, as a contractor or sub-contractor, as an employee of a contractor or sub-contractor, as an employee of a labour hire company who has been assigned work in the person's business or undertaking, as an outworker, as an apprentice or trainee, as a student gaining work experience, or as a volunteer. The person conducting the business or undertaking is also a worker if the person is an individual who carries out work in that business or undertaking.

Checklist Two – Vessel/Work Environment Checklist – Steel Products

This checklist is a minimum requirement and may be used in conjunction with this guide to supplement the *Vessel/Work Environment Checklist – General OHS Issues* (Checklist One).

Checklist Two may be used without modification. However, where necessary, this checklist should be adapted to suit the particular circumstances of a workplace. Checklists that are already in place may continue to be used if they address all potential hazards in that particular workplace.

Facility name _____

Vessel name _____

Names of person/s in charge:

1. Ship's Duty Officer _____

2. Of shift _____

Hatches to be worked (*please circle*): 1 2 3 4 5

Please indicate date and time of inspection activities:

Date	Time	Activity	Names of personnel involved
	:	On arrival of ship at port/prior to work commencing	(Supervisor/Foreman)
			(Health and Safety Representative)
			(Ship's representative)
			(Other)
	:	Regular inspection/s [†]	(Supervisor/Foreman)
			(Health and Safety Representative)
			(Ship's representative)
			(Other)

[†]Regular inspections may need to be undertaken more frequently than indicated here – use additional checklists as required.

Transfer any items marked 'No' to 'Actions for follow-up' at the end of the checklist.

VESSEL

General

Item		Circle	
1	Is the vessel appropriate for the type of cargo? (minimise snagging)	Yes	No
2	Do cargo presentation/stowage techniques minimise snagging of cargo?	Yes	No
3	Is access/egress to each cargo compartment adequate?	Yes	No
4	Are inclined ladders or vertical ladders with landing platforms fitted where depth of compartment is over 6 metres?	Yes	No
5	Are personnel access lids hinged and pontoon hatch covers safely secured in open position?	Yes	No

Storage

Item		Circle	
6	Are appropriate temporary access platforms used during stowage? (e.g. stages across cargo)	Yes	No
7	Do all chocks have correct fatigue factor?	Yes	No
8	Is dunnage use and placement controlled effectively? (e.g. push sticks)	Yes	No

Appliances, gear, etc.

Item		Circle	
9	Have pre-slung loads been provided with certification, rated Safe Working Load (SWL)/ Working Load Limit (WLL) and service history, and has this been sighted?	Yes	No
10	Is there any evidence of wear and tear in lifting gear? (e.g. stretched chains, defective hooks)	Yes	No
11	Do slinging methods ensure positive grip on entire load throughout loading/discharge? (e.g. one way to achieve this is to double wrap certain cargo)	Yes	No
12	Has the history of use and number of lifts undertaken since manufacture for specialised handling gear been sighted?	Yes	No
13	Where a full history for specialised handling gear has not been sighted, are loads re-slung using appropriately rated and certified gear?	Yes	No
14	Are appropriate temporary access platforms used during stowage? (e.g. stages across cargo)	Yes	No

WAREHOUSE

General

Item		Circle	
15	Do storage methods for coil consider the storage surface, coil diameter, and coating of coil?	Yes	No
16	Is the load-bearing capacity of floors in warehouse known and communicated?	Yes	No
17	Do all chocks have correct fatigue factor?	Yes	No
18	Are coil end stops in place where storage occurs in the vicinity of pedestrian walkways?	Yes	No
19	Is a coil collapse arrest system in place where storage takes place in vicinity of offices or amenities?	Yes	No

Appliances, gear, etc.

Item		Circle	
20	Is there any evidence of wear and tear in lifting gear? (e.g. stretched chains, defective hooks)	Yes	No
21	Has the gear register been sighted for all equipment?	Yes	No
22	Is all gear used in accordance with its marked Safe Working Load (SWL)/Working Load Limit (WLL)?	Yes	No
23	Have all lifting appliances been appropriately tested and serviced?	Yes	No
24	Is all load shifting/bearing equipment suitable for the task?	Yes	No
25	Are there any damaged or non-conforming items?	Yes	No

Sign-off (supervisor/person in charge)

Item	Circle	
Have records of vessel condition and on-forwarding actions been kept?	Yes	No
Has a record of this inspection (including who was involved and when it was completed) been forwarded for record keeping?	Yes	No

Signature _____ Name _____

References and further information

Australian Centre for Sleep Research (report commissioned by the Minerals Council of Australia)

Work Design, Fatigue and Sleep: A resource document for the minerals industry (2004)

Australian Council of Trade Unions (ACTU)
Health and Safety Guidelines for Shift Work and Extended Working Hours (2000)

Australian Maritime Safety Authority (AMSA)
Marine Orders parts 21, 32, 42, 44 and 58, and Marine Notices relevant to stevedoring activities

Australian Safety and Compensation Council (ASCC)
Work-Related Fatigue: Summary of recent indicative research (2006)

BHP Flat Products Division
BHP Steel – Recommended Practices for Steel Coil and Sheet Storage and Stacking (1996)

Government of Western Australia (Commission for Occupational Safety and Health/Mining Industry Advisory Committee)
Code of Practice for Working Hours (2006)

International Labour Organization (ILO)
Code of Practice on Safety and Health in Ports (2005)

National Transport Commission (NTC)
Guidelines for managing heavy vehicle driver fatigue (2007)

Standards Australia
Various Standards as cited in Appendix 20, *Marine Orders Part 32*

WorkSafe Australia
Draft National Code of Practice for Occupational Health and Safety in the Stevedoring and Container Depot Industry: A Public Discussion Paper (1991)

WorkSafe Victoria Stevedoring Guidance Material (2008)

Working Safely on the Waterfront

Working Safely with General Cargo – Steel Products, and

Working Safely with Containers

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