



Australian Government

Department of Education, Employment and Workplace Relations

FPPMHV210A Operate overhead crane

Release: 1

FPPMHV210A Operate overhead crane

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to operate an overhead crane in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to people who operate overhead cranes in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- plan work for the prevailing work conditions
- use controls and operating systems to manage the operation of the equipment
- locate load and identify load characteristics
- safely move load
- monitor and operate controls, and
- stop, shut down and secure equipment

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan work for the prevailing work conditions	1.1. Work for the prevailing work conditions is planned within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Traffic flow and work area conditions are constantly assessed and anticipated to allow safe operation to ensure no injury to personnel, or damage to equipment, loads or facilities 1.3. Characteristics of the load are taken into account to ensure that, where applicable, appropriate attachments/gear are used to move the load 1.4. Occurrences in the work area that may affect the safety and efficiency of operations are reported to appropriate personnel
2. Use controls and operating systems to manage the operation of the equipment	2.1. Controls and operating systems are used to manage operation of the equipment within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Equipment is prepared and appropriate attachments fitted (where applicable) 2.3. Equipment is started in accordance with manufacturers guidelines to bring to speed 2.4. Instruments and gauges are monitored during startup and operations to ensure that operation is within manufacturers specifications 2.5. Power is managed for efficiency of equipment movement and economy of equipment operations 2.6. Equipment operations are conducted within manufacturers specified torque range 2.7. Any faults or damage to equipment are immediately reported to the appropriate personnel
3. Locate load and identify load characteristics	3.1. Location of load and identification of load characteristics are completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Load is located and identified according to

ELEMENT	PERFORMANCE CRITERIA
	instructions
	3.3.Requirements for Safe Working Load (SWL) and Working Load Limit (WLL) of the gantry equipment are identified
	3.4.Load weight and dimensions are checked to ensure they fall within the capacity of the equipment
	3.5.Loading and unloading plans are followed to ensure efficiency and safety of operations
	3.6.Characteristics of the load are taken into account to ensure that appropriate loading and unloading procedures are followed
4. Safely move load	4.1.Load is moved safely within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2.Equipment is operated and positioned using smooth and controlled movements 4.3.Manoeuvres are within the limits of the equipment and in line with manufacturers specification 4.4.Load is moved ensuring no injury to personnel or damage to equipment or cargo 4.5.Continuous communication is maintained with personnel assisting the operator in load movement operations using appropriate communications technology and procedures 4.6.In the event of a safety incident or emergency, the equipment is immediately stopped and workplace emergency procedures followed 4.7.Safety incidents and emergencies are reported in accordance with workplace procedures and regulatory requirements
5. Monitor and operate controls	5.1.Controls are monitored and operated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 5.2.Equipment controls are monitored and operated in accordance with manufacturers operating instructions 5.3.Control systems are understood and acted upon in accordance with manufacturers guidelines

ELEMENT	PERFORMANCE CRITERIA
	5.4. Control faults are identified and reported
	5.5. Hazards in the work area are identified and appropriate measures are adopted to control the risks
6. Stop, shut down and secure equipment	6.1. Equipment is stopped, shut down and secured within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	6.2. Equipment is brought to a controlled halt and shut down without injury to personnel or damage to equipment, loads or facilities in accordance with manufacturers guidelines and workplace procedures
	6.3. Equipment is secured in accordance with manufacturers instructions and workplace procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication when operating an overhead crane
- Works collaboratively with others when shifting loads using gantry equipment
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Interprets instruments, gauges and data recording equipment
- Receives, acknowledges and sends messages with appropriate communications equipment
- Starts up and shuts down overhead crane
- Moves standard and non-standard loads ensuring:
 - load is correctly slung
 - correct operation of crane
 - load is within crane limits, particularly where load measuring devices are fitted
- Schedules movements to maintain material flow in mill to required timing
- Identifies cargo, container and goods, coding, Australian Dangerous Goods (ADG) and International Maritime Dangerous Goods (IMDG) markings and where applicable

REQUIRED SKILLS AND KNOWLEDGE

- Interprets and follows operational instructions and prioritises work
- Estimates the size, shape and special requirements of loads
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to overhead crane operation including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Australian Standards, manufacturer's and enterprise requirements on crane operation
- Australian and international codes, regulations, licence/permit requirements relevant to the use of gantry equipment to shift loads
- Requirements for safe working load (SWL) and working load limit (WLL) of gantry equipment
- Relevant safety codes and emergency procedures
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Focus of operation of work systems, equipment, management and site operating systems for the use of gantry equipment to shift loads
- Types of gantry equipment used to shift loads including applications and procedures and precautions for their use
- Marking and numbering systems for cargo
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in operating an overhead crane

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in operating an overhead crane

Access to the full range of equipment involved in operating an overhead crane in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Overhead cranes and accessories may include:

- pedestrian or remote operated
- cabin operated
- crane attachments

Job accessories may include:

- safety clothing and equipment
- vehicle manuals
- vehicle tools
- job and vehicle records and writing equipment
- first aid kit
- breakdown gear

Range of loads and lifting procedures may include:

- standard mill loads
- non-standard mill loads requiring trial lifts

Hazards in the work area may include:

- chemicals
- dangerous or hazardous substances
- movements of equipment, goods, materials and vehicular
- traffic

RANGE STATEMENT

Personal protective equipment may include:

- gloves
- safety headwear and footwear
- safety glasses
- two-way radios
- protective clothing
- high visibility clothing

Range of equipment may include:

- various types of bridge and gantry cranes
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation
- fully automated, semi-automated, manually operated plant and equipment appropriate to overhead crane operation

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- relevant codes and regulations for the shifting of cargo/containers using gantry equipment
- Australian and international regulations and codes of practice for the handling of dangerous goods and hazardous substances e.g. Australian and International Dangerous Goods Codes
- relevant Australian Standards including AS1418 and AS2550
- workplace relations regulations
- workers compensation regulations

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- goods identification numbers and codes
- Australian and international codes of practice and regulations relevant to the shifting of loads using gantry equipment
- Australian and international regulations and

RANGE STATEMENT

	codes of practice for the handling and transport of dangerous goods and hazardous substances • supplier and/or client instructions • dangerous goods declarations and Material Safety Data Sheets (MSDS) • award, enterprise bargaining agreement, other industrial arrangements • relevant Australian standards and certification requirements
Electronic control systems may include:	• Digital Control System (DCS) • touch screens • robotics
Actions may include:	• process adjustments • reporting to authorised person • rectifying problem within level of responsibility
Communications may include	interaction with: • internal/external customers and suppliers • team members • production/service co-ordinators • maintenance services • operational support personnel • operational management • statutory authorities
Situational awareness may include	awareness of: • traffic • pedestrians • location of equipment • product • hazards • obstruction • unexpected movement
Forms of communication may include:	• written e.g. log books, emails, incident and other reports, run sheets, data entry • reading and interpreting documentation e.g. SOP, manuals, checklists, drawings • verbal e.g. radio skills, telephone, face to face, handover • non-verbal e.g. hand signals, alarms,

RANGE STATEMENT

- Sensory information may include:
- observations
 - signage e.g. safety, access
 - visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable