



Australian Government

Department of Education, Employment and Workplace Relations

RIIMPO312A Conduct scraper operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers conducting scraper operations in the mining and extractive industries. It includes: planning and preparing for operations; operating the scraper; loading, hauling and dumping materials; and carrying out post-operational procedures.

Application of the Unit

Scrapers are wheeled tractor-scrappers and may be standard models, twin powered scrapers, elevated or auger scrapers, push-pull scrapers. This unit is appropriate for those working in mobile plant operator roles, at worksites within:

- Coal mining
- Extractive industries
- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare for operations	1.1. Access, interpret and apply <i>compliance documentation</i> relevant to conducting scraper operations 1.2. Obtain, interpret and clarify <i>work requirements and procedures</i> for the satisfactory completion of the allocated job 1.3. Access, interpret and apply <i>geological and survey data</i> required to complete the allocated job 1.4. <i>Inspect and prepare work area</i> in coordination with others 1.5. Identify, manage and report <i>potential hazards and risks</i> 1.6. Resolve <i>coordination requirements</i> with others at the site prior to commencing and during work activities 1.7. Select personal protective equipment appropriate for work activities
2. Operate scraper	2.1. Carry out <i>pre-start, start-up, park-up and shutdown procedures</i> 2.2. Select and modify the <i>operating technique</i> to appropriately meet <i>changing work conditions</i> 2.3. Conduct, control and monitor operations within the equipment limitations 2.4. Act on or report <i>monitoring systems and alarms</i> 2.5. Recognise and respond to <i>hazardous and emergency situations</i>
3. Load, haul and dump materials	3.1. Efficiently load scraper bowl with <i>material</i> 3.2. Carry out haulage operations 3.3. Efficiently and effectively dump material 3.4. Complete work in accordance with the agreed and within the operating capacity of the allocated equipment
4. Carry out post-operational procedures	4.1. Inspect, fault find and report faults 4.2. Carry out routine <i>operator servicing, maintenance and housekeeping tasks</i> 4.3. Maintain and process <i>records and reports</i>

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to conduct scraper operations:

- apply legislative, organisation and site requirements and procedures
- apply operational safety requirements
- access, interpret and apply technical information
- apply equipment records maintenance procedures
- apply diagnostic techniques
- use relevant hand tools
- apply procedures for disposal of environmentally sensitive fluids and materials
- apply chemical and fuel safety measures
- work wearing personal protective equipment

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to conduct scraper operations:

- site risk control procedures
- site and equipment health and safety procedures
- site environmental requirements and constraints
- site quality requirements
- site communication procedures
- site product characteristics
- towing and pushing requirements and techniques
- site geological and survey data
- site operational procedures
- scraper pre-start, start-up, operating and shutdown procedures and techniques
- scraper characteristics, technical capability and limitations
- hazard identification and response procedures
- site record keeping requirements
- site personal protective equipment requirements

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	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for conducting scraper operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of scraper operations • working with others to undertake and complete scraper operations that meet all of the required outcomes • consistent timely completion of scraper operations that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	<ul style="list-style-type: none"> • This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues.

	<ul style="list-style-type: none"> • Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake and complete scraper operations
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

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.

<p>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • codes of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Work requirements and procedures may come from briefings, handovers, and work orders and may be written or verbal, formal or informal, depending on the complexity of the process and may include:</p>	<ul style="list-style-type: none"> • product identification • nature and scope of tasks • achievement targets • operational conditions • obtaining permits required • site layout • out of bounds areas • worksite inspection requirements • lighting conditions • plant or equipment defects • hazards and potential hazards • coordination requirements or issues
<p>Geological data may include relevant site-specific information in relation to:</p>	<ul style="list-style-type: none"> • material type and characteristics • faults and joints • broken ground • water tables or other water sources • wet and dry areas • degree of compaction
<p>Survey data may include relevant site-specific information in relation to:</p>	<ul style="list-style-type: none"> • floor heights • bench heights and widths • ramp and floor grades • underground workings, voids or services • work circuit, which may include: <ul style="list-style-type: none"> • pick-up areas • dump areas

	<ul style="list-style-type: none"> • haul routes
Inspect and prepare work area may include:	<ul style="list-style-type: none"> • identification of hazards • selection and implementation of control measures for the hazards identified • safeguarding site and non-site personnel by: <ul style="list-style-type: none"> • erection of barricades and posting of signs • selection of appropriate equipment to ensure personnel safety and protection • determination of appropriate path of movement for loads and equipment/vehicles • floor clean up to specified levels and grade requirements • selection and implementation of environmental control measures
Potential hazards and risks may include:	<ul style="list-style-type: none"> • installed services • damaged or defective pressurise hoses and fastenings • abandoned equipment • adjoining pit walls or structures • adverse weather conditions (electrical storms, floods, fires) • chemicals • contaminants • ancillary equipment • fences • holes and pot holes • over-hanging rocks • personnel • unsafe ground • unstable faces • other vehicles • powerlines • dust and noise • conveyors and other fixed plant • overhead structures and services • stored energy which may include: <ul style="list-style-type: none"> • engine components • radiators and cooling systems • hydraulic tanks and reservoirs • air tanks and reservoirs • hydraulic hoses • air hoses

	<ul style="list-style-type: none"> • tires • air conditioning components • electrical components • braking systems • centrifugal forces
Coordination requirements may include with:	<ul style="list-style-type: none"> • other mobile plant operators • processing plant operators • maintenance personnel • water truck operators • service vehicle operators • crane and float operators • contractors • inspectors • supervisors • visitors
Pre-start and start-up procedure may include:	<ul style="list-style-type: none"> • external check of the machine • inspection of attachments to ensure security and identify defects • selection, removing and fitting of attachments • checking of fluid levels (windscreen washer tank, hydraulic oil, coolant, grease, water, engine oil, fuel) • carry out lubrication • checking of display instrumentation and gauges (indicators, gauges, laser levels), computer systems • inspection of air filter restriction indicator • inspection and checking of cab (horn, lights, air conditioner) • testing of engine and stop engine lights • testing visual and audio warning devices and lights • checking instruments and control lever • reporting of defects and damage
Park-up and shutdown procedures are to include ensuring that:	<ul style="list-style-type: none"> • vehicle/equipment is secured as required by site procedures • attachments are rendered safe • access ways are clear
Operating techniques may include:	<ul style="list-style-type: none"> • loading • load carrying • load discharge • equipment positioning

	<ul style="list-style-type: none"> • towing and pushing • observing site speed limits • working safely around: <ul style="list-style-type: none"> • overhead powerlines • other machines and personnel • live stockpiles
Changing work conditions may include variations in:	<ul style="list-style-type: none"> • grades • ground conditions • degree of compaction • wet and dry ground • height of faces • materials • weather conditions • varying light conditions
Monitoring systems and alarms may include:	<ul style="list-style-type: none"> • brake air pressure • brake oil temperature • computer indicators • engine oil pressure • fuel filter • parking brake • retarder • service meter • speedometer/odometer • steering filters • tachometer • torque converter • oil temperature • transmission filter • voltmeter • water temperature
Hazardous and emergency situations may include:	<ul style="list-style-type: none"> • powerlines • dust • noise • conveyors • overhead services • lighting strikes (potential tyre explosion) • tyre fires (isolation procedures)
Materials may include:	<ul style="list-style-type: none"> • top soil • overburden • sand • gravel

	<ul style="list-style-type: none">• mud• coal• oxidised waste• rejects• road base• rubbish sulphide rock fill• tailings
Operator service, maintenance and housekeeping tasks are those established and authorised for the site and may include:	<ul style="list-style-type: none">• cleaning,• authorised servicing and the monitoring,• recording and reporting of faults• conduct of authorised minor replacements• provision of assistance to maintenance personnel during maintenance and repair activities
Records and reports may include:	<ul style="list-style-type: none">• fuel usage• computer readings• end of shift documentation• supplies logs• work logs stockpile information• quality information• despatch details

Unit Sector(s)

Mobile Plant Operations

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.