



Australian Government

Department of Education, Employment and Workplace Relations

RIISAM204B Operate small plant and equipment

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the operating of a range of small plant and equipment in resources and infrastructure industries. It includes the planning and preparation for work, the conducting of pre-operational checks, the use of the plant and/or equipment, and carrying out operator maintenance and cleaning up.

Application of the Unit

This unit is appropriate for those working in operational, service and maintenance roles, at worksites within:

- Civil construction
- Coal mining
- Drilling
- 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

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	1.1. Access, interpret and apply compliance documentation relevant to operate small plant and equipment 1.2. Obtain, confirm and apply work instructions for the allotted task 1.3. Obtain, confirm and apply to the allotted task safety requirements from the site safety plan and organisational policies and procedures 1.4. Select plant, tools and equipment to carry out tasks are consistent with the requirements of the job 1.5. Identify, confirm and apply to the allotted task environmental protection requirements from the project environmental management plan
2. Conduct pre-operational checks	2.1. Select fuel and lubricants according to manufacturer's specifications 2.2. Check and adjust fuel, oil, hydraulic fluid and water levels according to manufacturer's manual 2.3. Secure/tighten and maintain bolts, nuts, guards and attachment couplings in accordance with manufacturer's instructions 2.4. Check and adjust function of controls and gauges where necessary to comply with manufacturer's manual 2.5. Conduct standard start-up and shutdown procedures according to requirements of operator's manual
3. Use small plant and equipment	3.1. Identify site hazards associated with small plant and equipment operations and establish appropriate controls in accordance with the requirements of the site safety plan 3.2. Identify and apply operating techniques for small plant and equipment to achieve optimum output in accordance with manufacture's design specifications while maintaining specified tolerances 3.3. Operate machine to produce results within design specifications to meet specified

	<p>tolerances</p> <p>3.4. Safely locate plant and equipment when not in immediate use</p>
4. Carry out operator maintenance	<p>4.1. Shutdown plant/equipment and prepare it for <i>maintenance</i> as per manufacturer's manual and organisational requirements</p> <p>4.2. Conduct inspection and fault finding in accordance with the manufacture's specifications and/or organisational requirements</p> <p>4.3. Remove and replace defective parts safely and effectively according to manufacturer's manual and organisational requirements</p> <p>4.4. Carry out regular programmed maintenance tasks in accordance with the manufacturer's and/or organisational requirements</p>
5. Clean up	<p>5.1. Clear work area and dispose of or recycle <i>materials</i> in accordance with project environmental management plan</p> <p>5.2. Clean, check, maintain and store plant, equipment and tools in accordance with manufacturer's recommendations and standard work practices</p>

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 operate small plant and equipment:

- apply legislative, organisation and site requirements and procedures
- apply clear and direct speaking and active listening skills
- apply teamwork to a range of situations, particularly in a safety context
- apply problem solving techniques, particularly in teams and in dealing with safety issues
- interpret and apply information
- show initiative in adapting to changing work conditions or contexts particularly when working across a variety of work placements
- manage time, particularly in organising priorities and planning work
- take responsibility for self organisation of work priorities
- use a range of mediums to learn

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 operate small plant and equipment :

- small plant and equipment types, characteristics, technical capabilities and limitations
- basic soil types and characteristics
- site and equipment safety requirements
- small plant and equipment operating techniques related to essential tasks
- operational, maintenance and basic diagnostic procedures
- site isolation and traffic control responsibilities and authorities
- materials safety data sheets (MSDS) and materials handling methods
- project quality requirements
- industry and site specific terminology
- JSA's/Safe work method statement

Evidence Guide

<p>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.</p>	
<p>Overview of assessment</p>	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<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 to operate small plant and equipment • implementation of requirements, procedures and techniques for the safe, effective and efficient operating of small plants and equipment • working with others to operate small plants and equipment that meets all of the required outcomes • consistent timely operating of small plants and equipment that safely, effectively and efficiently meets the required outcomes
<p>Context of and specific resources for assessment</p>	<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

	<p>language issues.</p> <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 operate small plants and equipment
Guidance information for assessment	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

Range Statement

<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 • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Work instructions may include:</p>	<ul style="list-style-type: none"> • verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, charts and hand drawings, memos, materials safety data sheets (MSDS) and diagrams or sketches • plans and specifications • quality requirements, including dimensions, tolerances, standards of work and material standards • safe work procedures related to the operation of small plant and equipment on construction sites
<p>Safety requirements may include:</p>	<ul style="list-style-type: none"> • protective clothing and equipment • use of tools and equipment • workplace environment and safety • handling of materials • use of fire fighting equipment • use of First Aid equipment • hazards and risks control, including: • uneven/unstable terrain • trees • fires • overhead and underground services • bridges • buildings • traffic • embankments • excavations and cuttings • structures and • hazardous materials and substances • safe operating procedures • underground and overhead services • other machines • personnel restricted access barriers • traffic control • working at heights

	<ul style="list-style-type: none"> • working in proximity to others • worksite visitors and • the public • emergency procedures, including: • emergency shutdown and stopping • extinguishing equipment fires • organisational First Aid requirements and • evacuation
<p>Environmental protection requirements may include:</p>	<ul style="list-style-type: none"> • organisational/project environmental management plan • waste management • water quality protection • noise, vibration and dust management and • clean-up management
<p>Small plant and equipment must include Power Sources and at least three other categories. These may include but are not limited to:</p>	<p>Power Sources include:</p> <ul style="list-style-type: none"> • generator • compressor • inverter • solar <p>Compaction equipment may include:</p> <ul style="list-style-type: none"> • plate compactor • pedestrian roller • wacker • packer • tamper) <p>Concrete equipment may include:</p> <ul style="list-style-type: none"> • concrete mixer • batcher • vibration • trowelling machine (helicopter) <p>Excavation equipment may include:</p> <ul style="list-style-type: none"> • mini loader (dingo) • jackhammer • posthole borer • pedestrian trencher <p>Cutting equipment may include:</p> <ul style="list-style-type: none"> • masonry saw • construction saw • band saw

	<p>Maintenance equipment may include:</p> <ul style="list-style-type: none"> • mower • brushcutter • mulcher <p>Water equipment may include:</p> <ul style="list-style-type: none"> • pump • spear • pressure cleaner <p>Lighting equipment may include:</p> <ul style="list-style-type: none"> • mobile lighting plant <p>Lifting and materials handling</p> <ul style="list-style-type: none"> • pedestrian forklift • pallet trolleys • hoist <p>Traffic Management may include:</p> <ul style="list-style-type: none"> • mobile variable message sign
Operator maintenance is to include:	<ul style="list-style-type: none"> • cleaning • authorised servicing • the monitoring, recording and reporting of faults
Operator maintenance may also include:	<ul style="list-style-type: none"> • the conduct of authorised minor replacements
Materials may include:	<ul style="list-style-type: none"> • water • clays, silts, stone, gravel, mud, rock sand, topsoil • bituminous mixes • timber • fuels and oils • power leads • replacement parts and consumables

Unit Sector(s)

Service and Maintenance

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.