

U17702

Operate specialised plant and machinery to performance requirements

Unit Descriptor:

This unit was produced by the (PRP) Plant Rationalisation Project) and is one of several units covering specialized plant and machinery operations.

This unit is designed to assess your competence in operation specialized plant and machinery to performance requirements, to interpret instruction and information to carry out operations. It confirms the competence to prepare the plant and machinery to meet the work activity planned and that the equipment is safe, set up and fully operational to carry out the work. It provides for operating the plant and machinery in the work activity and places emphasis on the consequences of the activity and the need to ensure safety and security in the work environment, including the need to be aware of others, whether work personnel or members of the public, who may have contact with the activity. Similarly this competence should also be in evidence in respect of property. Concluding the work activity, ensuring plant and machinery is secure and maintained in an operable condition completed the competence of the unit. Throughout the scope of activities envisaged there is the need to communicate with others and this too is recognised in the competence of operating the specialized plant and machinery to performance requirements.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

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| 1. Prepare and set up plant and machinery | <p>1.1 Ensure that work requirements are confirmed with the appropriate person(s) as to the extent, method and details of the work to be undertaken.</p> <p>1.2 Ensure that hazards and conditions that affect the work activity are identified and actions agreed with the appropriate person(s).</p> <p>1.3 Confirm that the equipment to be used is available and applicable to the work activity.</p> <p>1.4 Ensure that pre-start checks are carried out on the equipment, its energy and ancillary supplies in accordance with approved operating procedures and practices.</p> |
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- 1.5 Ensure that the **equipment** is prepared, set up and adjusted for the work activity in accordance with instructions, safety and the work requirements.
 - 1.6 Confirm that the operational performance of the **equipment** and its associated systems is correct, safe and appropriate to the work activity.
 - 1.7 Record defects and damage of the **equipment** and its associated systems is correct, safe and appropriate to the work activity.
 - 1.8 Maintain records in accordance with organisational **procedures** and requirements.
 - 1.9 Refer problems and conditions outside your responsibility of the job holder to an authorized person.
 - 1.10 Ensure that work is carried out to **approved procedures and practices** and in compliance with statutory requirements.
2. Prepare and set up plant and machiner
- 2.1 Identify and confirm the area of work in accordance with the instructions and to the specified work requirements.
 - 2.2 Communicate any changes in **hazards and conditions** that impinge on the work and safety to the appropriate person (s).
 - 2.3 Carry out operations safely in accordance with instructions and operational procedures to meet the specified work requirements.
 - 2.4 Monitor **equipment** to maintain safety of performance throughout the work activity.

- 2.5 Ensure that **methods of communication** used in accordance with the designated procedure.
- 2.6 Deal with any accidents(s) and incident(s) promptly and appropriately during operations in accordance with **approved procedures and practices.**
- 3. Shut down and secure plant and machinery
 - 3.1 Ensure that work activity is concluded to instructions and in accordance with the specified requirements.
 - 3.2 Identify and allow for **hazards and conditions** that affect the shut down or the equipment's security during and on completion of the shut down.
 - 3.3 Ensure that the **equipment** is shut down and left secure in accordance with **approved procedures and practices.**
 - 3.4 Ensure that any defects and damage of **equipment** are recorded and the appropriate action is taken for its correction.
 - 3.5 Ensure that **equipment** is maintained and ready for use in accordance with **post-stop maintenance** requirements.

RANGE STATEMENT

You must cover the items below:

Element 1: Prepare and set up plant and machinery**A. Hazards and conditions: *(Also applies to elements 2 and 3)***

- (i) adverse circumstances affecting the work activity
- (ii) operational performance and security
- (iii) services apparatus, surrounding
- (iv) obstructions
- (v) constructions and property
- (vi) neighbouring work and traffic activities
- (vii) encroaching personnel

B. Equipment: *(Also applies to elements 2 and 3)*

The selected specialized plant and machinery category and the key aspects associated with its operations.

- (i) adjustment for measurement and control,
- (ii) frequency
- (iii) rate of work
- (iv) power and transmission for forward and reverse movement
- (v) associated mechanical energies used such as hydraulics and compressed air
- (vi) system controls to include manoeuvring manipulation and safety
- (vii) construction and formation attachments.

C. Approved procedures and practices: *(Also applies to elements 2 and 3)*

- (i) organisational
- (ii) regulatory
- (iii) emergency
- (iv) operational

Element 2: Prepare and set up plant and machinery**A. Methods of communication:**

- (i) visual
- (ii) oral

Element 3: Shut down and secure plant and machinery**A. Post-stop maintenance:**

- (i) routine checks
- (ii) visual wear and tear inspection
- (iii) damage assessment
- (iv) energy supplies
- (v) safety checks

UNDERPINNING KNOWLEDGE

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Assessment should involve observation of your competence in operating specialized plant and machinery to performance requirements, to interpret instructions and information to carry out operations. You should demonstrate competence in operating the plant and machinery in the work activity while placing emphasis on the consequences of the activity and the need to ensure safety and security in the work environment. You should conclude the work activity ensuring that the plant and machinery is secure and maintained in an operable condition.

Performance evidence must be provided for all the performance criteria in this unit.

You must provide evidence that you fully understand:

A. Hazards and conditions:

- (i) Adverse circumstances affecting the work activity
- (ii) Operational performance and security
- (iii) Services apparatus, surround
- (iv) Obstruction
- (v) Constructions and property
- (vi) Neighbouring work and traffic activities
- (vii) Encroaching personnel

B. Equipment:

- (i) Adjustment for measurement and control
- (ii) Frequency
- (iii) Rate of work
- (iv) Power and transmission for forward and reverse movement
- (v) Associated mechanical energies used such as hydraulics and compressed air
- (vi) System controls to include manoeuvring manipulation and safety
- (vii) Construction and formation attachments

C. Approved procedure and practices:

- (i) Organisational
- (ii) Regulatory
- (iii) Emergency
- (iv) Operational

Use of equipment, chemical and all other activities must meet the requirements of the law and relevant codes of practice.

(2) Methods of Assessment

Observation by your assessor of you:

- Identifying and confirming the area of work in accordance with the instructions and to the specified work requirements.
- Carrying out operations safely in accordance with instructions and operational procedures to meet the specified work requirements.
- Monitoring **equipment** to maintain safety to performance throughout the work activity.
- Ensuring that **methods of** communication used in accordance with the designated procedure.

Answers to written or oral questions from your assessor.

(3) Context of Assessment

Evidence from simulations is **not** acceptable for this unit.