



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **AUMNT3013B Monitor and maintain metals treatment plant operations**

**Revision Number: 1**

## AUMNT3013B Monitor and maintain metals treatment plant operations

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	<p>This unit describes the application of the required skills and knowledge to monitor and maintain a multi-stage metals treatment plant designed to clean and prepare metal bodies for painting.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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### Application of the Unit

<b>Application of the unit</b>	<p>The unit applies to the automotive and related component manufacturing environment and involves application of skills and knowledge at a <i>specialist</i> level. These skills and knowledge are to be used within the scope of the person's job and authority.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>	Nil
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## Employability Skills Information

<b>Employability skills</b>	This unit contains Employability Skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or 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	<p>1.1. Activities are carried out according to <i>OHS</i> and <i>organisation requirements</i></p> <p>1.2. Work instructions, including relevant inspection reports and forms and quality requirements are obtained, confirmed with <i>appropriate personnel</i> and applied</p> <p>1.3. Tools and equipment selected to carry out tasks are consistent with job requirements, checked for serviceability and any faults are rectified or reported prior to commencement</p> <p>1.4. Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use</p>
2. Adjust and maintain treatment solutions	<p>2.1. Treatment solution specification and tolerances are identified and confirmed from the approved operating procedure or equivalent</p> <p>2.2. Location of each sample source is identified from plant schematics and the sampling and testing schedule is identified and correctly interpreted</p> <p>2.3. Sampling and labelling is carried out in accordance with approved procedure</p> <p>2.4. Samples are tested in accordance with the approved procedure and the results recorded to organisation standards</p>
3. Adjust and maintain stage operations	<p>3.1. Operating processes, control mechanisms, flow and specifications of each treatment stage are identified and confirmed from organisation plant specifications and procedures</p> <p>3.2. Stage plant components are inspected and prepared for operation, including pre operational servicing, in accordance with the organisation procedures</p> <p>3.3. Stage operations are test run and adjustments are made to controls, components and solutions to bring the stage to the correct operating specification</p> <p>3.4. Operations are monitored for compliance with specification in accordance with approved procedures</p> <p>3.5. Faults in stage operations are diagnosed and rectified or reported for specialist support action</p> <p>3.6. Excess, contaminated or unwanted materials, including chemicals and solutions are disposed of in</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>accordance with organisation requirements</p> <p>3.7. Documentation covering the operation of each stage, including fault resolution, is completed in accordance with organisation requirements</p>
4. Maintain product quality	<p>4.1. Product quality checks are carried out in accordance with organisation <i>work quality goals</i></p> <p>4.2. Defects are analysed and the likely cause is identified and investigated</p> <p>4.3. Actions to restore the product quality are implemented, checked and confirmed in accordance with organisation procedures</p> <p>4.4. Defects which cannot be remedied are reported for specialist attention</p> <p>4.5. Documentation covering each defect and response is completed in accordance with organisation requirements</p>
5. Clean up	<p>5.1. Work area is cleared and materials disposed of, reused or recycled in accordance with organisation requirements</p> <p>5.2. Tools and equipment are cleaned, checked, maintained and stored in accordance with organisation requirements</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the essential skills and knowledge and their level, required for this unit.

#### Required skills

- speak clearly and directly in order to report faults to specialist support personnel
- apply teamwork to a range of situations
- solve problems particularly in teams in order to meet performance indicators
- show initiative in adapting to changing work conditions or contexts particularly when working across a variety of work areas
- access, interpret and apply information on relevant organisation policies, procedures and instructions, particularly to ensure quality goals are maintained
- manage time when planning, preparing and organising work priorities
- take responsibility for organising own work priorities.

#### Required knowledge

- workplace and equipment safety requirements
- organisation safety policies and procedures
- automotive industry manufacturing terminology
- organisation production techniques and quality requirements for vehicle painting
- metals treatment plant functions, flow systems, control and documentation systems
- common metals treatment plant product faults/defects
- treatment plant related tools and equipment types, characteristics, uses and limitations
- flow control systems, mechanisms and adjustment processes
- basic chemical uses and reactions in relation to the treatment of metals for painting
- testing processes and specifications related to titration, pressure and coating integrity
- processes for the calculation of material requirements
- material Safety Data Sheets
- plans, drawings and specifications
- hazardous materials (Dangerous Goods) regulatory requirements
- materials handling, storage and environmentally compliant waste management processes
- relevant Australian Standards.

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.</p>	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> <li>• location, interpretation and application of relevant information, standards and specifications</li> <li>• compliance with organisation safety policies and procedures and OHS legislation/regulations/codes of practice applicable to operations</li> <li>• compliance with organisation policies and procedures including quality requirements</li> <li>• safe and effective operational use of tools and equipment</li> <li>• communication and working effectively and safely with others</li> <li>• individually monitor and maintain a multi-stage metal treatment plant over 5 full shifts during which:               <ul style="list-style-type: none"> <li>• pre-start checks on all stages are to be completed to organisation requirements</li> <li>• solutions are to be maintained to specifications using approved sampling testing and remedial processes</li> <li>• plant operations are to be maintained to specification</li> <li>• product quality is to be maintained to specification</li> <li>• rectification of at least three different treatment related metal product faults including all organisation documentation and reporting requirements (Some simulation may be required to ensure adequate scope).</li> </ul> </li> </ul>
<b>Context of and specific resources for assessment</b>	<ul style="list-style-type: none"> <li>• assessment of the competency should take place in a safe working environment in a passenger motor vehicle manufacturing plant or simulated environment using tools/equipment/machinery required for the production process without undue disruption to the production process</li> <li>• assessment is to occur under standard and</li> </ul>

<b>EVIDENCE GUIDE</b>	
	authorised work practices, safety requirements and environmental constraints.
<b>Method of assessment</b>	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"><li>• assessment methods must confirm consistency and accuracy of performance (over time and in a range of organisation relevant contexts) together with application of underpinning knowledge</li><li>• assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application</li><li>• assessment may be applied under project related conditions (real or simulated) and require evidence of process</li><li>• assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.</li></ul>



## Range Statement

<b>RANGE STATEMENT</b>	
<p>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 in the Performance Criteria is detailed below. Add any 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.</p>	
<p><b><i>OHS requirements</i></b> may include:</p>	<p>Legislation and regulations, organisational safety policies and procedures and may include: the use of personal protective equipment and clothing, rescue services, fire fighting organisation and equipment, first aid equipment, hazard and risk control and elimination, systems covering the use of hazardous materials and substances and manual handling procedures including lifting and carrying.</p>
<p><b><i>Organisation requirements</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• access and equity principles and practices</li> <li>• environmental management (waste disposal, recycling and re-use guidelines)</li> <li>• emergency and evacuation procedures</li> <li>• equipment use procedures</li> <li>• ethical standards</li> <li>• legal obligations</li> <li>• maintenance and storage procedures</li> <li>• organisational and site guidelines</li> <li>• policies and procedures relating to own role and responsibility</li> <li>• procedural manuals</li> <li>• quality assurance guidelines</li> <li>• quality and continuous improvement processes and standards</li> <li>• recording and reporting guidelines.</li> </ul>
<p><b><i>Appropriate personnel</i></b> may include:</p>	<p>those established within a quality system and may include identification, minimisation and elimination of defects, product/component specifications, tolerances, inspection systems, packaging specifications and non-conforming parts or products.</p>
<p><b><i>Work quality goals</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• continuous improvement programs</li> <li>• cost benchmarks</li> <li>• power conservation</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"><li>• productivity achievement</li><li>• waste avoidance.</li></ul>

### **Unit Sector(s)**

<b>Unit sector</b>	Automotive Manufacturing
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### **Competency field**

<b>Competency field</b>	Passenger Motor Vehicle
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### **Co-requisite units**

<b>Co-requisite units</b>	Nil
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