



Australian Government

Department of Education, Employment and Workplace Relations

AHCWAT301A Monitor and operate water treatment processes

Release: 1

AHCWAT301A Monitor and operate water treatment processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of monitoring, operating, measuring, adjusting and reporting water (including waste water) treatment performance and process control and defines the standard required to: carry out routine inspections and tests on water samples; identify control system faults; use water sampling and testing techniques; control chemical use in a safe and environmentally responsible manner; operate and control water treatment processes; compile records and reports.
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Application of the Unit

Application of the unit	This unit is likely to be carried out under routine supervision within enterprise guidelines.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Monitor water treatment plant performance	1.1. Routine inspections of treatment equipment are carried out in accordance with manufacturer's recommendations, Occupational Health and Safety (OHS) and enterprise policy and procedures. 1.2. Water samples are collected and standard tests are conducted, or samples are sent for analysis in accordance with enterprise policy and procedures and where applicable, the biosecurity and food safety codes. 1.3. Data on treatment process is collected, recorded and reported in accordance with enterprise policy and procedures.
2. Control chemical use	2.1. Chemicals are used/handled/stored in accordance with enterprise policy and procedures and statutory requirements. 2.2. Chemical dosing is prepared in accordance with enterprise policy and procedures and statutory requirements. 2.3. Information related to chemical supply and usage is maintained in accordance with enterprise policy and procedures and statutory requirements.
3. Operate and control water treatment processes	3.1. Water and/or waste water treatment processes are monitored to maintain parameters of operation. 3.2. Process faults and operational conditions of treatment equipment are identified and reported in accordance with enterprise policy and procedures. 3.3. Basic equipment and process adjustments are initiated to enhance performance in accordance with enterprise policy and procedures.
4. Compile records	4.1. Reports are compiled from equipment and water treatment processes to meet enterprise policy and procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

REQUIRED SKILLS AND KNOWLEDGE

- identify hazards and implement safe work procedures
- identify control system faults
- identify adverse environmental impacts of irrigation activities and appropriate remedial action, and use water sampling and testing techniques
- prepare and apply chemical dosing
- implement and follow relevant enterprise OHS and environmental policies and procedures
- use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning techniques, active listening, clarifying information and consulting with supervisors as required
- use numeracy skills to estimate, calculate and record routine workplace measures
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- water treatment and water filtration techniques
- water quality monitoring methods and techniques
- environmental impacts of irrigation, using water from any ground or underground source
- hazardous materials handling
- chemical dosing processes
- enterprise policies and procedures
- biosecurity and food safety codes of practice
- environmental issues associated with water treatment
- OHS procedures relating to the operation of machinery and the use of chemicals.

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	The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following: • carry out routine inspections and tests on water samples • identify control system faults • use water sampling and testing techniques • control chemical use in a safe and environmentally responsible manner • operate and control water treatment processes • compile records and reports.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Treatment of water may include:	• primary, advanced and pre-treatment using processes such as chemical addition, solids separation and disinfection.

Unit Sector(s)

Unit sector	Water
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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