



Australian Government

Department of Education, Employment and Workplace Relations

AHCIRG206A Maintain pressurised irrigation systems

Release: 1

AHCIRG206A Maintain pressurised irrigation systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of maintaining pressurised irrigation systems, including the repair and replacement of basic, simple components under routine supervision, and defines the standard required to: read and follow an operator's manual and manufacturer's specifications for pressurised irrigation systems; maintain irrigation system components including supply and distribution systems, outlets, strainers, pump screens and filters; inspect for dry areas and leaks; clear or replace worn or blocked parts and outlets; record and report maintenance observations and activities.
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Application of the Unit

Application of the unit	This unit applies to working with limited 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. Carry out pre- and post-season maintenance	<p>1.1. Equipment is prepared pre-season for effective operation in accordance with design specifications and enterprise standards.</p> <p>1.2. System is flushed, cleaned, closed down and maintained post-season in accordance with design specifications and enterprise standards.</p> <p>1.3. Equipment requiring storage is dismantled, loaded, transported and stored without damage according to enterprise standards and safe working practices.</p>
2. Carry out routine maintenance activities on pressurised irrigation delivery systems	<p>2.1. All maintenance activities are carried out according to the maintenance program and the manufacturer's specifications.</p> <p>2.2. Mechanical equipment is serviced in accordance with the operator's manual or as directed.</p> <p>2.3. Supply and distribution systems are flushed and cleaned with sprinklers, emitters and/or drip line tapes replaced as directed.</p> <p>2.4. Outlets, strainers, pump screens and filters are cleaned and replaced as directed.</p> <p>2.5. System is visually inspected for leaks, operating faults and dry areas, and observations recorded in the maintenance book.</p> <p>2.6. Operation area is maintained in a clean and safe condition, and Occupational Health and Safety (OHS) procedures are followed.</p>
3. Maintain system components	<p>3.1. System maintenance is carried out at scheduled times using equipment and materials in accordance with enterprise standards and manufacturer's specifications.</p> <p>3.2. Parts are inspected for wear or blockage and reported or replaced according to enterprise guidelines.</p> <p>3.3. Outlets are removed and cleaned and damaged ones are reassembled and replaced according to manufacturer's specifications.</p> <p>3.4. Operation area is maintained in a clean and safe condition, and OHS procedures are followed.</p>
4. Record and report maintenance activities	<p>4.1. All damage and blockage caused by pests and vermin is recorded by damage type, location and the section of the system affected.</p> <p>4.2. Damage or faulty pumps, valves, electrical components and computer systems are recorded and reported, and action taken to effect repairs.</p>

ELEMENT	PERFORMANCE CRITERIA
	4.3. All routine maintenance activities are recorded and reported in accordance with enterprise standards.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- identify hazards and adopt safe work practices
- read and follow an operator's manual and manufacturer's specifications for pressurised irrigation systems
- maintain selected irrigation system components
- rectify damage caused by weeds or pests
- record and report maintenance observations and activities
- use literacy skills to follow sequenced written instructions and record information accurately and legibly
- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification and seeking advice from supervisor
- use numeracy skills to estimate, calculate and record routine workplace measures
- use interpersonal skills to relate to people from a range of social, cultural and ethnic backgrounds and with a range of physical and mental abilities.

Required knowledge

- OHS and environmental legislative and enterprise procedures relating to pressurised irrigation system maintenance
- major components of a pressurised irrigation delivery system
- maintenance requirements and procedures for system components
- environmentally safe disposal procedures for chemical containers and residues, oils/grease and used parts.

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	<p>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:</p> <ul style="list-style-type: none"> • read and follow an operators manual and manufacturers specifications for pressurised irrigation systems • maintain irrigation system components including supply and distribution systems, outlets, strainers, pump screens and filters • inspect for dry areas and leaks • clear or replace worn or blocked parts and outlets • record and report maintenance observations and activities.
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.	
Pressurised irrigation systems include:	<ul style="list-style-type: none"> • micro-irrigation systems and spray irrigation systems ranging from manual operation and monitoring to fully automated with computer control and monitoring.
Micro-irrigation systems may include:	<ul style="list-style-type: none"> • mains pressure • low pressure • below or above ground

RANGE STATEMENT	
	<ul style="list-style-type: none"> • sprays systems • drip emitter trickle • t-tape • mini-sprinklers • capillary.
Spray irrigation systems may include:	<ul style="list-style-type: none"> • travelling irrigators (soft hose, hard hose boom type) • centre pivot • linear move • powered side roll hand shift permanent (installed) • bike shift/easy shift.

Unit Sector(s)

Unit sector	Irrigation
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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