



Australian Government

Department of Education, Employment and Workplace Relations

AHCIRG212A Assist with sprinkler irrigation operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This Unit covers the process of assisting with the operation of sprinkler irrigation systems under routine supervision and defines the standard required to: identify the purpose of irrigation system components; monitor irrigation times and plant response; start up and shut down irrigation systems; store and maintain equipment; and regulate a sprinkler irrigation system to achieve and maintain correct operating pressures and water flows.

Application of the Unit

This Unit applies to working under supervision, within enterprise guidelines.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This Unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare materials, tools and equipment for <i>sprinkler irrigation systems</i>	1.1 Irrigation equipment is handled safely in accordance with Occupational Health and Safety (OHS) practices 1.2 Irrigation equipment is positioned, if necessary, in accordance with enterprise requirements 1.3 Irrigation components are checked and action taken, as required, in accordance with enterprise policy and procedures 1.4 Irrigation system components are assembled and joined where required 1.5 Water outlets are checked in accordance with enterprise practices
2 Undertake sprinkler irrigation work as directed	2.1 Valves are opened and shut, as necessary, in accordance with enterprise procedures 2.2 Required pressures and water flows are achieved and maintained to ensure sufficient water availability 2.3 Equipment is relocated, if necessary, in accordance with enterprise procedures and OHS guidelines
3 Observe and report on soil moisture and plant growth response	3.1 Soil moisture levels are assessed to determine watering requirement 3.2 Environmental hazards from surface irrigation are identified and reported where necessary 3.3 Plant moisture requirements and signs of stress are established 3.4 Plant growth and condition is monitored to indicate over or under watering 3.5 Inadequate plant response to watering is recorded and reported
4 Carry out start up and shutdown procedures as directed	4.1 Start-up sequence is followed 4.2 System components are shut down in sequence 4.3 System is drained 4.4 Irrigation activity is recorded
5 Assist with sprinkler system maintenance	5.1 Sprinklers are checked for serviceability and output 5.2 Delivery components are maintained 5.3 Water supply and pumping system is checked periodically 5.4 Maintenance records are kept up to date
6 Store irrigation equipment and materials	6.1 Equipment is cleaned and prepared for storage, as necessary, in accordance with enterprise policy and procedures. 6.2 Equipment is loaded for transport safely, if necessary, in accordance with OHS procedures 6.3 Equipment is stored, as required, in accordance with enterprise policy and procedures

Required Skills and Knowledge

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

Required skills include:

Ability to:

- prepare materials, tools and equipment for sprinkler irrigation work
- handle materials and equipment
- carry out sprinkler irrigation operating tasks as directed
- follow directions to operate pumps, filters and valves
- observe for leaks and faulty sprinklers
- carry out basic maintenance tasks
- use tools and equipment
- report faults
- record and report maintenance activities
- clean up on completion of work
- follow safe work procedures.

Required knowledge includes:

Knowledge of:

- purpose and principles of sprinkler irrigation
- identification, characteristics and operation of replaceable components of sprinkler irrigation systems
- sprinkler spacing and coverage
- sprinkler volume and pressure
- use of simple irrigation controllers
- system malfunctions and their likely causes
- environmental impacts of irrigation, using water from any ground or underground source.

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 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"> • identify the purpose of irrigation system components • monitor irrigation times and plant response • start up and shut down irrigation systems • store and maintain equipment • regulate a sprinkler irrigation system to achieve and maintain correct operating pressures and water flows.
<p>Context of and specific resources for assessment</p>	<p>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.</p>

Range Statement

<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, if used in the performance criteria, is detailed below. 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) may also be included.</p>	
<p><i>Sprinkler irrigation systems</i> may include:</p>	<p>systems that use spray or rotor type sprinklers to distribute irrigation water at higher volume including pop-up sprinklers, fixed, and movable sprinklers (e.g. K Line and Ezy Shift).</p>

Unit Sector(s)

Irrigation