



**Australian Government**

# **AHCIRG221 Assist with pressurised irrigation operations**

**Release: 1**

# AHCIRG221 Assist with pressurised irrigation operations

## Modification History

| Release   | Comments                                                                                                                    |
|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 4.0. |

## Application

This unit of competency describes the skills and knowledge required to assist with installing, operating and maintaining pressurised irrigation systems. These systems use sprinklers and generally use glued PVC pipe.

The unit applies to individuals who assist with pressurised irrigation operations under general supervision with limited autonomy and accountability.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Irrigation (IRG)

## Elements and Performance Criteria

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                         |
| 1. Prepare for work                              | 1.1 Read work instructions and confirm with supervisor activity to be undertaken, including identifying potential hazards and risks and implementing safe working practices to minimise risks to self and others<br>1.2 Select appropriate materials, tools, equipment and machinery for the task<br>1.3 Select, fit and use personal protective equipment and clothing applicable to the task |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                |
|                                                  | 1.4 Identify the site for installation of the irrigation system                                                                                                                                                                                                                       |
| 2. Assist with installing irrigation components  | 2.1 Prepare the site for installation works<br>2.2 Lay out irrigation components as directed<br>2.3 Dig or tidy trenches where required<br>2.4 Add or insert system components as directed<br>2.5 Position and secure lines as directed<br>2.6 Assist with fitting pumps and valves   |
| 3. Complete installation activities              | 3.1 Check the irrigation system for leaks or blockages<br>3.2 Identify and report problems and anomalies<br>3.3 Clean, maintain and store tools, equipment and machinery<br>3.4 Collect waste and dispose of or recycle<br>3.5 Record workplace information in the appropriate format |
| 4. Assist with start up and shutdown procedures  | 4.1 Follow start-up sequence as directed<br>4.2 Shut down system components in sequence as directed<br>4.3 Drain system as directed<br>4.4 Record irrigation activity in the appropriate format                                                                                       |
| 5. Assist with system maintenance                | 5.1 Check sprinklers for serviceability and output<br>5.2 Maintain delivery components as directed<br>5.3 Check water supply and pumping system periodically, where required<br>5.4 Keep maintenance records up to date                                                               |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

| Skill | Description |
|-------|-------------|
|-------|-------------|

| Skill                      | Description                                                                                                                                                                     |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading                    | <ul style="list-style-type: none"><li>Interpret textual information from a range of sources to identify relevant and key information about workplace operations</li></ul>       |
| Writing                    | <ul style="list-style-type: none"><li>Use correct terminology to record irrigation system installation, activity and maintenance</li></ul>                                      |
| Oral communication         | <ul style="list-style-type: none"><li>Use clear language to confirm work activity and report irrigation system incorrect operation</li></ul>                                    |
| Numeracy skills            | <ul style="list-style-type: none"><li>Identify irrigation system component part numbers</li></ul>                                                                               |
| Navigate the world of work | <ul style="list-style-type: none"><li>Recognise and follow workplace requirements, including safety requirements, associated with own role and area of responsibility</li></ul> |

## Unit Mapping Information

| Code and title current version                          | Code and title previous version                         | Comments                                                                                     | Equivalence status |
|---------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------|
| AHCIRG221 Assist with pressurised irrigation operations | AHCIRG217 Assist with pressurised irrigation operations | Performance criteria clarified<br>Foundation skills added<br>Assessment requirements updated | Equivalent unit    |

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCIRG221 Assist with pressurised irrigation operations

## Modification History

| Release   | Comments                                                                                                                    |
|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 4.0. |

## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has assisted with pressurised irrigation operations on at least one occasion and has:

- applied workplace health and safety requirements
- selected and prepared materials, tools, equipment and machinery appropriate to the scope of works
- undertaken site preparation tasks as directed
- assembled and joined irrigation system components
- completed installation work
- looked for leaks and faulty sprinklers
- recognised, recorded and reported maintenance activities and faults
- followed directions to operate pumps, filters and valves
- carried out basic maintenance tasks
- fixed identified faults.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace requirements applicable to health and safety in the workplace for assisting with pressurised irrigation operations
- principles and practices of pressurised irrigation systems
- irrigation controllers
- irrigation pipes, types and sizes
- sprinkler irrigation components and their function
- set out procedures
- installation techniques and procedures
- operation of pressurised irrigation system
- sprinkler spacing, coverage and pressure

- system malfunctions and their likely causes
- types of sprinklers.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - pressurised irrigation system maintenance tools and equipment
  - personal protective equipment applicable to assisting with pressurised irrigation operations
- specifications:
  - workplace requirements applicable to health and safety in the workplace and assisting with pressurised irrigation operations
  - work instructions and workplace procedures applicable to assisting with pressurised irrigation operations
- relationships:
  - supervisor
- timeframes:
  - according to job requirements.

Assessors of this unit must satisfy the requirements of assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>