



Australian Government

Assessment Requirements for AHCIRG346 Operate pressurised irrigation systems

Release: 1

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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 operated a pressurised irrigation system on at least two occasions and has:

- applied workplace health and safety requirements
- selected tools and equipment appropriate to the scope of works
- read and followed operations manual and procedures
- started the system and carried out operational checks
- monitored system effectiveness, including:
 - application rates
 - depth of irrigation
 - emitter output
 - irrigation times
 - pressure variations and blockages
 - salinity levels and water quality
- carried out measurements for output and distribution
- measured and interpreted flow rates and pressures
- assessed soil moisture levels
- performed shut down procedures
- recorded data.

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 operating pressurised irrigation systems
- electrical hazards, including:
 - contact with pumps, motors, other live components

- short circuits
- standing laterals to remove blockages
- water spray onto power lines
- energy efficiency indicators and benchmarks for pressurised irrigation
- pressurised irrigation equipment operation and maintenance manual
- main components of pressurised irrigation systems
- pump types used in irrigation systems and their operation
- general irrigation methods for low volume systems
- principles of irrigation and the water cycle
- critical measures for moisture availability, including:
 - evapotranspiration
 - field capacity
 - infiltration rates
 - readily available water
 - water holding capacity
 - wilting point
- soil characteristics
- soil, plant and water relationships
- water requirements of plants and crops consistent with sound environmental management
- environmental impacts of irrigation using water from any ground or underground source
- shutdown sequence and flushing procedures.

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 operation and maintenance manual
 - pressurised irrigation system equipment
 - personal protective equipment applicable to operating pressurised irrigation systems
- specifications:
 - work instructions and workplace procedures applicable to operating pressurised irrigation systems
 - pressurised irrigation system tools and equipment and procedures
 - workplace requirements applicable to health and safety in the workplace and operating pressurised irrigation systems
 - recording procedures
- 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>