AHCIRG444 Manage irrigation systems

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Modification History

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

Application

This unit of competency describes the skills and knowledge required to prepare an irrigation system for operation, develop start-up, shutdown and isolation procedures, trouble shoot for faults and blockages, and measure and review irrigation system performance.

The unit applies to individuals who apply specialised skills and knowledge to the management of irrigation systems and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

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
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Prepare irrigation system for operation	1.1 Assess staff training needs for carrying out pre-start checks and routine servicing and arrange training for those that require it 1.2 Program or adjust the irrigation controller to meet required schedule 1.3 Develop procedures for adjusting valves and checking filters and emitters

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
2. Develop start-up, shutdown and isolation procedures	2.1 Develop start-up procedures for the system 2.2 Develop shutdown sequence and isolation procedures 2.3 Install safety or security lock off devices and signage 2.4 Provide instructions for flushing the system as required
3. Supervise trouble shooting activities	3.1 Organise access to faulty components and blockages 3.2 Organise removal and repair or disposal of faulty components 3.3 Supervise selection and installation of replacement components
4. Supervise irrigation system performance measurement	4.1 Identify and record variations in pressures 4.2 Measure and record water flow rates 4.3 Identify and record variations in water flow and distribution 4.4 Measure and record pump performance parameters as necessary 4.5 Measure and record variations in pump performance parameters where relevant 4.6 Inspect distribution and delivery systems 4.7 Identify and repair delivery system malfunctions and record actions 4.8 Identify and record factors external to the system that may cause interference
5. Review system performance status	5.1 Record system pressures and variations 5.2 Record system flow rates and variations 5.3 Calculate and record distribution uniformity and mean application rates 5.4 Determine and record watering depth 5.5 Calculate and compare energy use and water efficiency to industry benchmarks

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
Reading	• Identify and interpret information regarding managing irrigation systems
Navigate the world of work	• Identify and describe own workplace requirements, including safety requirements, associated with own role and area of responsibility

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCIRG444 Manage irrigation systems	AHCIRG433 Manage irrigation systems	Performance criteria clarified Foundation skills added 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