



Australian Government

Department of Education, Employment and Workplace Relations

FDFWGG2013A Deliver injection requirements

Release: 2

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Modification History

This unit supersedes and is equivalent to FDFWGGIRB Deliver injection requirements.
April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This specialist unit has been developed for the wine grape growing stream of the wine sector. It covers the skills and knowledge required to deliver injection requirements via an irrigation system according to instructions
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Application of the Unit

Application of the unit	This unit applies to employees who inject various materials for delivery via equipment used to irrigate vines. Material to be injected may be wet or dry and includes fertilisers, chlorine, acid and cleaning agents. Identification of and calculation of the amount to be injected is included. The unit covers injection into various types of irrigation equipment, including flood, dripper, microjet, sprinkler, overhead and water winch. Injection of materials must be consistent with environmental and occupational health and safety (OHS) requirements.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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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 equipment for operation	1.1 Materials and services are confirmed as available and ready for operation 1.2 Materials are prepared to meet injection requirements 1.3 Equipment is checked to confirm readiness for use 1.4 Equipment is set to meet injection requirements
2. Operate the injection process	2.1 The injection process is started up according to workplace procedures 2.2 Control points are monitored to confirm performance is maintained within specification 2.3 Out-of-specification equipment performance is identified, rectified and/or reported 2.4 Injection requirements are delivered according to instructions 2.5 Equipment is maintained in good working order
3. Shut down injection equipment	3.1 Injection equipment is shut down according to workplace procedures 3.2 Injection equipment is cleaned according to workplace procedures 3.3 Waste generated by both the process and cleaning procedures is collected, treated, disposed of or recycled according to workplace procedures 3.4 Work is conducted in accordance with workplace environmental guidelines
4. Record information	4.1 Workplace information is recorded in the appropriate format

Required Skills and Knowledge

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

Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Ability to:

- access workplace information to identify injection requirements
- select, fit and use personal protective clothing and/or equipment
- confirm supply of necessary services and materials
- liaise with other work areas
- identify, rectify and/or report environmental non-compliance
- detect and prepare injection materials as required. This may include the accurate completion of calculations, such as dilution rates
- confirm equipment status and condition
- set up and start up the process. This can involve the use of process control systems
- monitor the process and system operation to identify out-of-specification results or non-compliance. This can involve monitoring:
 - usage rates
 - dilution
- take corrective action in response to out-of-specification results or non-compliance
- report and/or record corrective action as required
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements
- maintain work area to meet housekeeping standards
- demonstrate safe handling of hazardous chemicals
- implement routine maintenance and minor repairs of the system
- implement routine system cleaning requirements
- apply information technology systems according to enterprise procedures
- apply sampling techniques according to enterprise procedures
- conduct routine tests according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce.

Required knowledge include:

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

Knowledge of:

- purpose and principles of chemicals used and their effect on irrigation system or vine performance. This should include the effect of miscalculations and inaccurate deliveries
- purpose and operation of equipment and instrumentation components
- basic operating principles and process control systems where relevant
- services required
- control points and significance and methods of monitoring
- common causes of variation and corrective action required
- process specifications, procedures and operating parameters
- correct chemical handling techniques
- OHS hazards and controls
- lock-out and tag-out procedures
- environmental issues and controls
- procedures and responsibility for reporting problems
- cleaning requirements of system
- maintenance requirements of system
- shutdown sequence
- recording requirements and procedures
- cleaning procedures
- information technology systems where relevant
- sampling techniques and procedures where relevant
- routine testing procedures where relevant.

Evidence Guide

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>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • use personal protective clothing and equipment where required • correctly select and prepare injection materials • correctly pre-start checks of equipment • start injection process correctly • monitor injection process control points and equipment, including checking for environmental compliance, usage rates and dilution • take corrective action in response to out-of-specification results or non-compliance • perform routine and emergency shutdowns • handle and/or remove waste in accordance with specified procedures • record information appropriately.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment as required • work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements • instructions, information, specifications and schedules as required • equipment, services and corresponding information as required • products and materials as required • internal and external customers and suppliers as required • cleaning procedures, materials and equipment as required

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> documentation and recording requirements and procedures.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

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>	
Policies and procedures	Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	<p>Workplace information can include:</p> <ul style="list-style-type: none"> Standard Operating Procedures (SOPs) specifications production schedules instructions routine maintenance schedules work notes Material Safety Data Sheets (MSDS) manufacturer instructions verbal directions from manager, supervisor or senior operator
Confirming equipment status	<p>Confirming equipment status involves:</p> <ul style="list-style-type: none"> checking that all safety standards and pre-start requirements are met and equipment is operational checking the operation and/or calibration of

RANGE STATEMENT	
	measuring instrumentation
Services	Services may include: <ul style="list-style-type: none"> • water and power
Monitoring the process	Monitoring the process may involve: <ul style="list-style-type: none"> • the use of production data, such as performance control charts
Process operation and monitoring functions	Process operation and monitoring functions may be: <ul style="list-style-type: none"> • manual or involve the use of a process control system
Control points	Control points refer to those key points in a work process that must be monitored and controlled. This includes: <ul style="list-style-type: none"> • quality and regulatory control points • inspection points
Irrigation systems	Irrigation systems may include: <ul style="list-style-type: none"> • flood • dripper • microjet • sprinkler • overhead • water winch
Materials to be injected	Materials to be injected may be wet or dry and may include, but are not restricted to: <ul style="list-style-type: none"> • fertilisers • chlorine • acid • cleaning agents
Equipment	Equipment may include: <ul style="list-style-type: none"> • injection pump • injection point • chemical holding tank
Information systems	Information systems may be: <ul style="list-style-type: none"> • print or screen based and may include information technology for injection scheduling systems, recording and reporting systems
Work hazards	Work may involve exposure to: <ul style="list-style-type: none"> • chemical, dangerous or hazardous substances

Unit Sector(s)

Unit sector	Wine operations
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