



Australian Government

Department of Education, Employment and Workplace Relations

FPIWPP3217B Process production effluent

Release: 1

FPIWPP3217B Process production effluent

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to prepare and maintain the production effluent and distribute the waste to water

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPIWPP3217A Control production effluent

Application of the Unit

Application of the unit The unit involves processing production effluent in a forest products factory setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Employability Skills Information

Employability skills 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 effluent plant	<p>1.1. Applicable <i>Occupational Health and Safety</i> (OHS), <i>environmental</i>, <i>legislative</i> and <i>organisational requirements</i> relevant to processing production effluent are identified and followed</p> <p>1.2. <i>Equipment</i> is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations</p> <p>1.3. <i>Pumping lines</i> are set-up and checked in line with site requirements</p> <p>1.4. <i>Treatment solution</i> is pumped from the mixing tank to effluent line settling pits and clarifier</p> <p>1.5. <i>Sludge</i> is run from <i>clarifier</i> and water drained from sludge beds in line with organisational procedures and environmental regulations</p> <p>1.6. <i>Communication</i> with others is established and maintained in line with OHS requirements</p>
2. Distribute water to pasture	<p>2.1. Water is pumped to <i>pasture</i> area in line with environmental regulations</p> <p>2.2. <i>Flow rate</i> is set, monitored and adjusted to suit required absorption rate</p> <p>2.3. <i>pH level</i> is checked, monitored and adjusted in line with environmental regulations</p> <p>2.4. Effluent processing and equipment faults are <i>recorded and reported</i> to the appropriate personnel</p>
3. Conduct operator maintenance	<p>3.1. Effluent plant shut-down procedures are followed in line with OHS legislation and site procedures</p> <p>3.2. <i>Settling pits</i> are drained and cleaned to collection point</p> <p>3.3. <i>Solids</i> are cleaned from discharge drain and disposed of in line with site procedures and environmental regulations</p> <p>3.4. Water is recirculated from catchment area to irrigation</p> <p>3.5. Dam banks are monitored for weed and vermin</p> <p>3.6. Effluent plant area is kept clear of foreign bodies and debris in line with OHS requirements</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Required skills

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; efficiently and safely process effluent
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for processing production effluent
- Environmental protection requirements, including the safe disposal of waste material, the safe use and storage of chemicals, and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for processing production effluent
- Environmental risks and hazards
- Effluent processing techniques
- Effluent treatment
- Effluent discharge environmental regulations
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

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.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently process production effluent in line with organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to processing production effluent
- following organisational policies and procedures relevant to processing production effluent
- processing production effluent and discharge it to pasture
- conducting operator maintenance on effluent treating equipment

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with

EVIDENCE GUIDE

- application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the essential underpinning knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

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.

OHS requirements: are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and

RANGE STATEMENT

may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements
may include:

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements
may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards
- OHS, emergency and evacuation procedures
- ethical standards

RANGE STATEMENT

- recording and reporting requirements
- equipment use and maintenance and storage requirements
- environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)

Equipment may include:

- pumping lines
- mixing tanks
- effluent line settling pits
- clarifiers
- sludge beds

and is to include:

- procedures for equipment lock-out, ie protecting operators and co-workers from accidental injury by isolating the machine from the power source

Pumping lines

disperse processed effluent from the treating system to pasture and between treating system components

Treatment solution

are flocking products or settling agents which capture foreign particles and solids floating weightlessly within the settling pit and sink these to the bottom and the discharge pipes for easy removal

Sludge

is a tanked area where treated effluent is further treated to gain clarity, processing it in readiness for discharge to pasture

Clarifier

process clears the effluent removing cloudiness and subsequent foreign particles

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language
- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice

RANGE STATEMENT

- body language

Pasture

is the surrounding rural fields where processed effluent is discharged as a method of irrigation

Flow rate

is the speed at which processed effluent is discharged

pH level

measures acidity or alkalinity in the processed effluent to achieve the acceptable level to suit the environment it is being pumped to

- Records and reports** may include:
- processing and treating requirements
 - storage locations
 - quality outcomes
 - hazards
 - incidents
 - equipment malfunctions

and may be:

- manual
- using a computer-based system or another appropriate organisational communication system

Settling pits

are the catchments which accept the run off return from the treating process which contain many foreign particles and solids

Solids

are the result of using settling agents to solidify foreign particles in the effluent tank or settling pits for easy removal

Unit Sector(s)

Unit sector No sector assigned

Co-requisite units

Co-requisite units

Co-requisite units

Competency field

Competency field Wood Panel Products