



Australian Government

Department of Education, Employment and Workplace Relations

FPPDEO210A Monitor and control dry end operations

Release: 1

FPPDEO210A Monitor and control dry end operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control dry end operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control dry end operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor and control process and systems
- control product quality
- conduct product grade change, and
- record process and system information

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or troubleshooting and rectifying dry end operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

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. Monitor and control process and systems	1.1.Process systems are monitored and controlled within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2.Production requirements are checked at start of shift to plan the day's activities 1.3.Process supplies are maintained and controlled to meet production requirements 1.4.Systems are monitored to ensure dry end operations are within parameters 1.5.Process and system variations from operating parameters are identified, rectified and/or reported 1.6.Operator level preventative maintenance is undertaken as required 1.7.Changes to machine operations are communicated to relevant personnel 1.8.Sheet breaks are detected and sheet re-established as required
2. Control product quality	2.1.Product quality is controlled within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2.Sheet is monitored and controlled to quality requirements 2.3.Product and system operations are confirmed by inspection, observations and other information 2.4.Adjustments are made to control quality requirements 2.5.Test samples are taken and test results interpreted and recorded as required 2.6.Changes to product requirements are communicated to relevant personnel
3. Conduct product grade change	3.1.Product grade change is conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2.Grade change requirements are determined and planned 3.3.Dry end systems are shut down as required

ELEMENT	PERFORMANCE CRITERIA
4. Record process and system information	3.4.Process setups/adjustments are implemented to meet new grade requirements 3.5.Equipment startups are coordinated and implemented as per new grade requirements 3.6.Grade change is coordinated and implemented on the run as required 4.1.Process and system information is recorded within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2.System and production information is recorded 4.3.Problems or variations in performance are recorded and communicated

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling dry end operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Takes samples, conducts tests, interprets and records results if required
- Uses measuring equipment as required
- Identifies and monitors process control points
- Maintains situational awareness in work area
- Interprets and plans grade change requirement
- Co-ordinates and conducts grade changes
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

- Procedures, regulations and legislative requirements relevant to dry end operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Working knowledge of dry end plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Quality requirements
- Application of high risk (and non-high risk) load shifting equipment as required
- Materials and supplies and how they influence paper properties
- Grade change processes, coordination and requirements
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the dry end, within level of responsibility

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

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

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements

EVIDENCE GUIDE

- applicable aspects of the range statement
- practical workplace demonstration of skills in the monitor and control of dry end operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in dry end operations

Access to the full range of equipment involved in integrated continuous manufacturing of dry end operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

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.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

Systems and functions involved in dry end operations may include:

- drying processes
- reeling operations
- chemical additive system
- monitoring systems
- sheet treatment processes
- tail feed systems
- broke system
- on-line coating systems
- calendering systems
- vacuum systems
- laser systems
- slitter systems
- sheet transfer systems
- accumulator
- cleaning showers

RANGE STATEMENT

Materials, supplies and stock may include:

- chemicals
- compressed air
- water
- electricity
- gas
- steam
- additives
- machine clothing
- ropes and belts

Equipment may include:

- scales
- tape turner
- hand and power tools
- computer systems
- electronic screens and alarms
- process control systems
- computer systems
- electronic screens and alarms
- process control systems
- fully automated, semi-automated, manually operated plant and equipment appropriate to the dry end process

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Hazards and risks may include:

- steam and/or gas leaks
- fires
- nip points
- compressed air
- hot surfaces
- electrical
- entanglement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces

RANGE STATEMENT

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| Legislation, regulatory, licensing and certification requirements may include: | <ul style="list-style-type: none"> • dust • OHS and environmental requirements (local, state and commonwealth) • activity or task specific high risk (and non-high risk) load shifting licensing requirements as applicable |
| Documentation, procedures and reports may include: | <ul style="list-style-type: none"> • SOP • site policy and procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • confined space requirements • vendor documentation • reference manual • grade specifications • quality procedures • oil or chemical spills and disposal guidelines • plant isolation documentation • housekeeping • safe work documentation e.g. plant clearance, job safety analysis, permit systems • maintenance logs • job sheets • operating log • production instructions • Materials Safety Data Sheets (MSDS) • process and instrument diagrams |
| Maintenance may include: | <ul style="list-style-type: none"> • operator level maintenance as per site agreements • operator maintenance schedules • maintenance systems • maintenance suppliers • pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM) |
| Actions may include: | <ul style="list-style-type: none"> • process adjustments • reporting to authorised person • rectifying problem within level of responsibility |
| Communications may include | interaction with: |

RANGE STATEMENT

- team members
- production/service co-ordinators
- internal/external customers and suppliers
- maintenance services
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable