Modification history

Release	Comments
Release 1	This version released with PPM Pulp and Paper Manufacturing Training Package Version 3.0.

PPMDEO3XX	Perform dry end operations
Application	This unit of competency describes the skills and knowledge required to prepare for, startup, stablise and shut down systems for dry end operations. This unit applies to production operators who perform dry end operations in a paper manufacturing facility, and respond to contingencies that occur working with complex integrated equipment and continuous operations. Dry end operations cover a range of systems and sub systems including drying processes, reeling operations, chemical additive system, monitoring systems, sheet treatment processes, tail feed systems, broke system, on-line coating and coated paper systems, calendering systems, vacuum systems, laser systems, slitter systems, sheet transfer systems, accumulator and cleaning showers. No licensing, legislative or certification requirements apply to this unit at the time of publication.
Prerequisite Unit	Nil
Unit Sector	Dry end operations (DEO)

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Prepare for dry end operations	1.1 Identify production requirements and specifications to plan system operations and processes 1.2 Identify work health and safety hazards, assess risks and determine control measures 1.3 Identify process control points according to production specifications 1.4 Confirm availability of machine supplies 1.5 Select, fit and use personal protective equipment according to job requirements and task to be undertaken 1.6 Communicate production requirements and specifications, work health and safety and environmental requirements and operating procedures to relevant personnel
2. Inspect and prepare systems for startup	2.1 Inspect dry end and control systems for safety and indication of faults or problems 2.2 Remove isolations according to operating procedures 2.3 Set and confirm operational settings according to production requirements and specifications 2.4 Complete pre-start check ups and confirm operation of monitoring devices 2.5 Identify and rectify common faults or refer complex faults to specialist technician
3. Start up and stabilise dry end operations	3.1 Coordinate, communicate and implement startup procedures for dry end operations 3.2 Confirm system functions by monitoring plant, equipment and control system and display monitors 3.3 Establish sheet and stabilise through dry end sections to parent reel 3.4 Monitor and adjust systems to rectify variations from specifications 3.5 Adjust and modify to stabilise sheet quality within specifications

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
4. Implement and monitor system shutdown	4.1 Coordinate and communicate planned shutdown of dry end operations to relevant personnel 4.2 Manage plant or system shutdown according to productivity, work health and safety and environmental requirements and operating procedures 4.3 Monitor functionality of equipment during shutdown 4.4 Implement isolation requirements according to operating and housekeeping procedures
5. Respond to unplanned shutdown	5.1 Respond to unplanned faults and stoppages according to operating, emergency and workplace health and safety procedures 5.2 Complete shutdown and isolation according to operating procedures 5.3 Locate and rectify cause of unplanned shutdown within area of responsibility 5.4 Communicate shutdown information to relevant personnel
6. Record and report production information	6.1 Record production and quality data and system operation information according to workplace requirements 6.2 Report problems or variations with production, quality and system to relevant personnel

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	• Interpret information from workplace procedures and documentation
Writing	• Complete records accurately and legibly using clear language and industry terminology
Oral communication	• Provide information about start up and shut down operations, problems or variations with production, quality and system using clear language and industry terminology
Numeracy	• Interpret numerical settings on instruments, gauges and data recording equipment • Record numerical data for system and operational performance

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
PPMDEO3XX Perform dry end operations	PPMDEO320 Prepare and start up dry end operations	Merges four units. Changes to unit title, elements, performance criteria, foundation skills, performance and knowledge evidence. Assessment conditions updated. Addresses coated paper processes	Not equivalent
PPMDEO3XX Perform dry end operations	PPMDEO330 Co-ordinate and implement dry end shutdown	Merges four units. Changes to unit title, elements, performance criteria, foundation skills, performance and knowledge evidence Assessment conditions updated. Addresses coated paper processes	Not equivalent
PPMDEO3XX Perform dry end operations	PPMCPP320 Prepare and start up coated paper processes	Merges four units. Changes to unit title, elements, performance criteria, foundation skills, performance and knowledge evidence. Assessment conditions updated.	Not equivalent
PPMDEO3XX Perform dry end operations	PPMCPP330 Co-ordinate the shutdown of coated paper processes	Merges four units. Changes to unit title, elements, performance criteria, foundation skills, performance and knowledge evidence Assessment conditions updated.	Not equivalent

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93

TITLE	Assessment requirements for PPMDEO3XX Perform dry end operations

Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must evidence that the individual has planned for, coordinated, and safely started up and shut down dry end operations for at least two operational intervals, including for each operational interval:
- determined and monitored process control points
- monitored, assessed causes and adjusted systems to rectify variations from specifications and unplanned shutdown
- used and interpreted electronic control systems during operations
- applied safe use and handling of chemicals and materials
- recorded and reported accurate operational data
- communicated effectively and worked safely with others when undertaking dry end operations.

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 and legislative health and safety requirements relevant to performing dry end operations, including emergency procedures, handling chemical and hazardous substances, high risk load shifting, licensing requirements, plant clearance and permit systems
- relevant workplace and legislative environmental sustainability requirements and practices for dry end operations, including workplace biotechnological applications and processes and biomass-derived products
- methods used to identify and manage hazards and risks that apply to dry end operations
- dry end systems and processes, plant layout and associated services relevant to carrying out startup, stabilising and shut down activities
- standard operating procedures specific to dry end operations
- types of, uses and characteristics of raw materials to produce dry end product and how they influence paper properties
- quality requirements for different types of dry end products
- grades types for dry end product
- purpose of, and processes for sampling and testing product quality, plant and system operations
- methods used to monitor dry end system operations against specified system parameters
- effect of process adjustments on product quality and productivity during operation
- application of electronic and other control systems used to operate, control and make appropriate adjustments to dry end operations
- responses used for unplanned shutdowns, including those caused by power outage, mechanical breakdown, blockages, jamming, air supply and control system failure.
- procedures for communicating, recording and reporting for system operation, production outcomes and equipment faults.

Assessment Conditions

Assessment of skills in this unit of competency must take place under the following conditions:
- physical conditions:
  - skills must be demonstrated in a paper manufacturing facility or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - dry end system and plant
  - maintenance tools and equipment and consumables for dry end plant
  - electronic control systems which include digital control system, touch screens or robotics used in dry end systems
  - materials used in dry end processes including chemicals, compressed air, water, electricity, gas, steam, additives, machine clothing and ropes and belts
  - personal protective equipment required for operating dry end systems

Assessment Conditions

- proforma or recording system for recording system and production data and information
- specifications:
  - workplace and standard operating procedures relating to dry end operations including health and safety, risks and hazards identification, plant isolation, quality, housekeeping and environmental requirements
- relationships:
  - relevant personnel for the purposes of communicating information.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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