



Australian Government

FPPWEO320A Prepare and start up wet end operations

Release: 1

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Modification History

Not Applicable

Unit Descriptor

This unit describes the outcomes required to prepare and start up wet end operations in the pulp and paper industry.

Application of the Unit

This unit applies to operators who prepare and start up wet 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:

- determine production requirements
- inspect and prepare systems for startup
- start up wet end operations, and
- establish startup at the wet end to meet safety, quality and productivity requirements.

It does not include monitoring and controlling, shutting down or troubleshooting and rectifying problems associated with wet end operations.

Licensing/Regulatory Information

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.

Pre-Requisites

Not Applicable

Employability Skills Information

This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements	Performance Criteria
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. Determine production requirements	1.1 Production requirements are determined within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2 Planned production requirements are confirmed and communicated to relevant personnel 1.3 Availability of machine supplies are confirmed
2. Inspect and prepare systems for startup	2.1 Systems are inspected and prepared for startup within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2 Isolations are removed as required 2.3 Operational settings are made and confirmed 2.4 Pre-startup checks are completed 2.5 Monitoring devices and systems are checked and confirmed operational 2.6 Faults are identified and rectified as required 2.7 Confirmation for startup is communicated to relevant personnel
3. Start up wet end operations	3.1 Wet end operations are started up within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2 Equipment startups are co-ordinated and implemented

ELEMENT	PERFORMANCE CRITERIA
	3.3 System functions are confirmed by monitoring plant, equipment and control system/display monitors 3.4 Process operation is communicated to relevant personnel 3.5 Production startup details are documented as required
4. Establish startup at wet end	4.1 Startup is established at wet end within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2 Sheet at wet end is established 4.3 Process is monitored and adjustments made as required 4.4 System operation, production and quality information is documented as required

Required Skills and Knowledge

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up wet 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
- Identifies and monitors process control points
- Plans and organises startup
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to wet 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
- Working knowledge of wet end plant, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Quality requirements
- Application of high risk (and non-high risk) load shifting equipment, as required
- 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 wet end operations, within level of responsibility

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 - applicable aspects of the range statement - practical workplace demonstration of skills in preparing and starting up wet 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 wet end operations Access to the full range of equipment involved in integrated continuous manufacturing wet 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
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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 in wet end operations may include:	• stock approach systems • forming system • pressing systems • cleaning and screening system
Materials and supplies may include:	• water • air • stock • chemicals • additives • steam • machine clothing • baled pulp
Equipment may include:	• screens • forming section • water, chemical, vacuum or stock systems • former • pumps

	• consistency meter • flow meter • refiner • control valves • cleaning showers • chemical showers • presses • cleaners • waste hood recovery unit • computer systems • electronic screens and alarms • process control systems • fully automated, semi-automated, manually operated plant and equipment appropriate to the wet end process
Electronic control systems may include:	• Digital Control System (DCS) • touch screens • robotics
Hazards and risks involved in wet end operations may include:	• steam and/or gas leaks • fires • nip points • compressed air • hot surfaces • electrical • entanglement • vehicle movement • slip hazards/falls • energy • pressures • chemicals • fumes • confined spaces • dust
Legislation, regulatory, licensing and certification requirements may include:	• OHS and environmental requirements (local, state and commonwealth) • activity or task specific high risk (and non-high risk) load shifting licensing requirements
Documentation, procedures and reports may include:	• 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:	• 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)
Action may include:	• process adjustments • reporting to authorised person • rectifying problem within level of responsibility
Communications may include interaction with:	• 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