



Australian Government

Department of Education, Employment and Workplace Relations

FPPCPP320A Prepare and start up coated paper processes

Release: 1

FPPCPP320A Prepare and start up coated paper processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and start up coated paper processes 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 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 prepare and start up coated paper processes 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
- co-ordinate startup operations, and
- establish and stabilise production and quality processes

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, shutting down or troubleshooting and rectifying coated paper processes

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. 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. Production plan is interpreted 1.3. Grade specifications and limits are confirmed and communicated to relevant personnel 1.4. Process requirements are determined 1.5. Process supplies are confirmed available for production 1.6. Chemical and material requirements are determined
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 (if any) are removed 2.3. Pre-startup checks on equipment (e.g. coater and supply systems) are completed 2.4. Electrical power and process supplies are confirmed as available for production 2.5. Chemical/material delivery system is prepared for operation 2.6. Operational settings are made and confirmed within specification 2.7. Production ready status is confirmed with relevant personnel 2.8. Monitoring devices/systems are checked and confirmed operational 2.9. Faults are identified and rectified as required
3. Co-ordinate startup operations	3.1. Startup operations are co-ordinated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Equipment startups are co-ordinated for production 3.3. System functions are co-ordinated and confirmed by monitoring plant, equipment and control system/display monitors 3.4. Process operation status is communicated to relevant personnel

ELEMENT**PERFORMANCE CRITERIA**

	3.5. Production startup details are logged, recorded or filed
4. Establish and stabilise production and quality processes	4.1. Production and quality processes are established and stabilised within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Processes are monitored and adjusted to rectify variations from specification 4.3. Adjustments/modifications are made to stabilise coating quality within specification 4.4. Samples are taken as required to ensure product quality requirements are met 4.5. Product tests are verified as within specification, where applicable 4.6. Process operation, production and quality data is recorded as required

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 preparing and starting up coated paper processes
- Communicates operational requirements clearly to relevant personnel
- Reads and interprets required documentation, procedures and reports
- Prepares written information and data to support groups and teams
- Accesses, navigates and enters computer-based information
- Monitors, analyses and interprets data
- Interprets instruments, gauges and data recording equipment
- Interprets control systems and display monitors in accordance with SOP and other specifications
- Responds to control systems and display alarms in accordance with SOP
- Confirms production ready status with team members and relevant personnel
- Identifies and actions problems within level of responsibility
- Responds to faults of process flow-through systems if required
- Responds to faults of plant if required

REQUIRED SKILLS AND KNOWLEDGE

- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Takes samples, conducts tests and interprets and records results if required
- Uses measuring equipment as required
- Calculates performance measures
- Determines coating production requirements (e.g. sheet, coating chemicals)
- Conducts checks to ensure availability of sheet, coating chemicals and electrical power
- Conducts checks to ensure space availability for coated sheet where applicable
- Ensures isolations are removed according to SOP
- Conducts pre-startup checks of plant and equipment including instrumentation
- Inputs operational settings (e.g. set points) in preparation for startup in accordance with SOP
- Activates and confirms operation of coating system according to SOP
- Operates high risk load shifting equipment as required
- Makes process control adjustments to stabilise production and obtain product quality
- Conducts routine maintenance checks
- 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
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Required knowledge

- Procedures, regulations and legislative requirements relevant to coated paper processes including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Information provided on the production specification sheet
- Navigation of computer control system displays
- Relationships within the coating area members and with the area's suppliers and customers
- Basic problem-solving techniques consistent with level of responsibility
- Cause and effect of operational equipment faults
- Working knowledge of coated paper processes, system layout and associated services sufficient to carry out startup activities within level of responsibility
- Sampling and testing process for plant and system operations and process monitoring - purpose, standards and procedures as per site agreements
- Purpose of each of the steps in the preparation of the coating system for production

REQUIRED SKILLS AND KNOWLEDGE

- Purpose of each component of the coating system
- Purpose and location of the coating chemical supply system
- Critical control points of the preparation for startup procedure
- Purpose of the process controls and how changes affect the production variables
- Critical control points of the startup procedure
- Critical control points of the monitoring process during startup
- Awareness of 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 coated paper processes, 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
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing and starting up coated paper processes

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 coated paper processes

Access to the full range of equipment involved in

EVIDENCE GUIDE

integrated continuous manufacturing of coated paper processes 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.

RANGE STATEMENT

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

Coated paper processes may include:

- tail feed systems
- chemical and material batching
- laminating and coating
- splicing
- clay plant operation
- calender
- pre-reeler operations
- super calendering
- monitoring systems
- rewinding
- drying systems
- internal unloading
- combine rollers
- testing

Materials and supplies may include:

- chemicals and polymers
- power
- water
- additives
- steam
- labels
- felts
- equipment
- gas

RANGE STATEMENT

Equipment may include:	• accessories (parts) • air • base paper • coater • splicer • pre-reelers • crimpers • calender • super-calender • parent rolls and reels • cranes • pigment • coating makedown plant • starch cooker • slitter • computer systems • electronic screens and alarms • process control systems • analogue and digital instrumentation • fully, automated, semi-automated, manually operated plant and equipment appropriate to the coated paper process
Electronic control systems may include:	• Digital Control System (DCS) • touch screens • robotics
Legislation, regulatory, licensing and certification requirements may include:	• OHS and environmental requirements (local, state and commonwealth) • activity or task specific high risk licensing requirements
Documentation, procedures and reports may include:	• SOP • quality procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • enterprise policies and procedures • Material Safety Data Sheets (MSDS) • oil or chemical spills and disposal guidelines • plant isolation documentation • safe work documentation e.g. plant clearance, job safety analysis, permit systems • product specifications and schedules

RANGE STATEMENT

- maintenance logs
- job sheets
- site agreements
- safety instructions
- process and instrument diagrams
- machine manuals
- troubleshooting guides
- incidents reports

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

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

Situational awareness may include awareness of:

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

RANGE STATEMENT

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, 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

Sensory information may include:

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

Unit Sector(s)

Not Applicable