Australian Government

Department of Education, Employment and Workplace Relations

FPPCPR210A Prepare chemical products

Release: 1

FPPCPR210A Prepare chemical products

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare chemical products in the pulp and paper industry

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

Application of the Unit

Application of the unit

This unit applies to persons who prepare chemical products in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- establish chemical requirements
- inspect and prepare chemical systems
- start, monitor and maintain chemical system, and
- implement shutdown procedures

to meet safety, quality and productivity requirements

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. Establish chemical requirements	1.1. Chemical requirements are established within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements
	1.2. Chemical requirements are determined
2. Inspect and prepare chemical systems	2.1. Chemical systems are inspected and prepared within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	2.2. Isolations are removed
	2.3. Visual check of delivery systems are conducted
	2.4. Delivery systems are confirmed as operational using electronic control systems
	2.5. Additives are mixed to specifications as required
	2.6. Quality checks are conducted on chemical product as required
3. Start, monitor and maintain chemical system	3.1. Chemical system is started, monitored and maintained within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	3.2. Process tests are conducted to ensure product quality
	3.3. Process adjustments are made to ensure product quality
	3.4. Documentation is maintained
	3.5. Details of hazardous situations are documented as required
	3.6. Faulty equipment is identified and repaired or replaced
4. Implement shutdown procedures	4.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	4.2. Shutdown is planned, organised and conducted 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 chemical products
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Communicates information clearly to internal and external contacts
- Collects and collates information for decision-making
- Identifies and actions problems within level of responsibility
- Interprets instruments, gauges and other recording equipment
- Identifies and monitors process control points
- Plans work within standard procedures
- Prepares chemical system
- Maintains a clear and hazard free work area
- Conducts tests, interprets and records results if required
- Uses measuring equipment
- Identifies and responds appropriately to shutdown causes
- Responds to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Maintains situational awareness in the work area
- 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 knowledge

- Procedures, regulations and legislative requirements relevant to preparing chemical products 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
- Cause and affects of operational equipment faults and appropriate rectification action
- Chemical system layout
- Chemical preparation processes and systems

REQUIRED SKILLS AND KNOWLEDGE

- Plant and machinery functions and operations
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Types, causes and effects of shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Emergency procedures and responses
- 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, 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 chemical products

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 preparing chemical products

Access to the full range of equipment involved in preparing chemical products 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

EVIDENCE GUIDE

	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.

Materials and supplies may include:	• water • chemicals
Equipment may include:	• chemical production equipment • process control and monitoring equipment, input and extract data • computer systems • electronic screens and alarms • process control systems • analogue and digital instrumentation • fully automated, semi-automated, manually operated plant and equipment appropriate to preparing chemical products
Legislation, regulatory, licensing and certification requirements may include:	• OHS and environmental requirements (local, state and commonwealth)
Documentation, procedures and	• SOP • quality procedures

RANGE STATEMENT

reports may include:	• environmental sustainability requirements/practices • plant manufacturing operating manuals • enterprise policies and procedures • oil or chemical spills and disposal guidelines • plant isolation documentation • safe work documentation e.g. plant clearance, job safety analysis, permit systems
Electronic control systems may include:	• Digital Control System (DCS) • touch screens • robotics
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 • operational support personnel • operational management • statutory authorities
Situational awareness may include	awareness of: • traffic • pedestrians • location of equipment • product • hazards • obstruction • unexpected movement
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

RANGE STATEMENT

Sensory information may include:

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

Unit Sector(s)

Not Applicable