

Modification history

Release	Comments
Release 2	This version released with PPM Pulp and Paper Manufacturing Training Package Version 2.0.
Release 1	This version released with PPM Pulp and Paper Manufacturing Training Package Version 1.0.

PPMREC440	Troubleshoot and rectify chemical recovery operations
Application	<p>This unit of competency describes the skills and knowledge required to analyse, rectify and report on chemical recovery operations, in the pulp and paper industry.</p> <p>The unit applies to senior operators and production specialists who troubleshoot and rectify chemical recovery operations, in the pulp and paper industry. This typically involves working in a facility with complex integrated equipment and continuous operations.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	Pulp and Paper Manufacturing (PPM)

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and analyse causes of faults	1.1 Undertake tasks according to productivity requirements, environmental sustainability procedures, workplace health and safety and standard operating procedures including the use of appropriate personal protective equipment (PPE), risks and hazards identification and housekeeping requirements 1.2 Interpret warning devices to determine fault type and location 1.3 Identify by observation, systematic sampling and testing, quality faults and variations 1.4 Take samples for tests to detect quality faults and variations 1.5 Interpret sampling and testing results to identify variations from specifications or schedule 1.6 Identify, locate and analyse causes and sources of process problems or equipment faults using correct PPE 1.7 Access and interpret relevant sources of information to assist analysis
2. Rectify process problems and equipment faults	2.1 Conduct operator level on-line adjustments 2.2 Implement isolation procedures and plant shut down prior to fault rectification 2.3 Identify hazardous conditions, take appropriate action and communicate the conditions to relevant personnel 2.4 Isolate, by-pass, repair or replace faulty equipment according to equipment specifications 2.5 Return plant and equipment to normal operation 2.6 Communicate rectification to relevant personnel
3. Rectify product quality faults	3.1 Conduct further tests according to organisational procedures 3.2 Rectify faults and causes or make recommendations for further action 3.3 Manage out-of-specification product
4. Record and report system performance and product quality data	4.1 Record variations from process specifications 4.2 Record actions undertaken to troubleshoot and rectify faults 4.3 Document details of hazardous conditions or situations, according to organisational procedures 4.4 Communicate relevant information to appropriate personnel

Foundation Skills	
<i>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.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> Read and interpret specifications, procedure manuals and test results
Writing	<ul style="list-style-type: none"> Record and report test results and rectifications accurately and legibly, using correct technical vocabulary
Oral communication	<ul style="list-style-type: none"> Select and use appropriate spoken communication strategies with work colleagues and other personnel on site during operations
Numeracy	<ul style="list-style-type: none"> Interpret instruments, gauges and data recording equipment Use measuring equipment, with chemicals, as required
Navigate the world of work	<ul style="list-style-type: none"> Access, navigate and enter computer based information Use electronic and other control systems to control equipment and processes and make appropriate adjustments for troubleshooting processes
Get the work done	<ul style="list-style-type: none"> Maintain situational awareness in the work area Analyse and use sensory information to adjust process to maintain and co-ordinate safety, quality and productivity

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
PPMREC440 Troubleshoot and rectify chemical recovery operations Release 2	PPMREC440 Troubleshoot and rectify chemical recovery operations Release 1	Minor changes to performance criteria and knowledge evidence	Equivalent unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93
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TITLE	Assessment requirements for PPMREC440 Troubleshoot and rectify chemical recovery operations
Performance Evidence	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has followed safe working practices when troubleshooting and rectifying chemical recovery operations, at least twice in line with required enterprise intervals, including:</p> <ul style="list-style-type: none"> • monitored chemical processes and plant operations • identified causes and effects of faults and corrective action on associated processes • identified and rectified faults in processes and plant, relevant to chemical recovery operations • undertaken timely corrective action to maximise safety, quality and productivity • used and interpreted electronic control systems, including digital control system, touch screens or robotics to control equipment and processes as required during operations • communicated effectively and worked safely with others, in the work area when undertaking troubleshooting and rectification of chemical recovery operations. 	
Knowledge Evidence	
<p>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:</p> <ul style="list-style-type: none"> • organisational procedures relevant to workplace health and safety with particular emphasis on: <ul style="list-style-type: none"> • use of personal protective equipment (PPE) • equipment lock out and isolation procedures • handling chemicals and hazardous substances, including spill and disposal guidelines • plant clearance requirements • emergency procedures and responses • job safety analysis documentation and processes • plant permit systems and processes • high risk load shifting licensing requirements where relevant • major hazard facility requirements where relevant • chemical recovery plant, processes, layout and associated services to carry out shutdown activities, within level of responsibility • chemical recovery processes and associated services sufficient to monitor and control operations • electronic and other control systems, operation and application to make appropriate adjustments that control the chemical recovery operations within level of responsibility. 	
Assessment Conditions	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • a workplace or a productive environment that accurately reflects performance in a workplace • resources, equipment and materials: <ul style="list-style-type: none"> • access to the full range of chemicals and equipment required to troubleshoot and rectify chemical recovery operations in a pulp or paper manufacturing facility • PPE required for operating chemical recovery systems • pumps and transfer equipment • mechanical, hydraulic and electrical systems • process monitoring and management equipment. <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93