

Modification history

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

PPMPRS4XX	Solve systemic problems
Application	<p>This unit of competency describes the outcomes required to use structured problem-solving strategies to resolve systemic problems.</p> <p>The unit applies to production technicians or team leaders who are required to identify improvements and solve systemic problems associated with plant and equipment, product quality and processes that occur in a pulp and paper manufacturing facility.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	Problem Solving (PRS)

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 scope the problem	1.1. Identify variances from desired operating parameters and quality specifications 1.2 Define type and extent of problem through observation and investigation 1.3 Identify effect of problem on productivity, operations, quality and regulatory requirements
2. Assess situation and determine actions	2.1 Assess risk and take immediate action if safety quality or productivity are compromised 2.2 Identify and notify team members and other personnel involved 2.3 Consult or refer problem to relevant work group or department 2.4 Assess and determine problem solving methodologies appropriate to the problem and situation
3. Conduct analysis	3.1 Collect and analyse information to determine problem solving actions 3.2 Consult team members and apply their contribution to problem solving actions 3.3 Identify and compare a range of courses of actions to solve problem based on priorities, benefits, cost efficiency and other identified factors 3.4 Determine interim fixes as required 3.5 Determine best course of action based on analysis outcomes
4. Determine action plan	4.1 Develop the action plan based on analysis of problem scope and identified course of action 4.2 Identify, define and sequence action activities 4.3 Estimate activity duration, costs and resources 4.4 Identify and formulate contingencies based on a risk assessment 4.5 Document and seek approval for the plan from relevant personnel
5. Implement and monitor plan	5.1 Develop implantation plans that identifies resource needs, schedules and performance measures 5.2 Communicate implementation tasks and responsibilities, work health and safety and environmental requirements and operating procedures to team members and relevant personnel 5.3 Provide training or assist personnel to meet their responsibilities 5.4 Monitor implementation and record completion of activities and progress towards milestones

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
6. Evaluate and communicate the solution	6.1 Evaluate rectified system, product or process to determine effectiveness of solution 6.2 Evaluate problem-solving process and identify any issues and opportunities for continuous improvement 6.3 Complete report outlining the problem-solving process, solution outcomes and recommendations for future improvements 6.4 Communicate solution outcome and improvement strategies to team and relevant personnel

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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"> Interpret and analyse sometimes complex information from research documentation and reports
Writing	<ul style="list-style-type: none"> Develop clear, detailed and logically structured plans and reports
Oral communication	<ul style="list-style-type: none"> Use questioning and listening to identify problem scope and required action Participate in verbal exchange to report clear and concise information to a range of personnel
Numeracy	<ul style="list-style-type: none"> Calculate required resources, costs and timelines for a period of time

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
PPMPRS4XX Solve systemic problems	PPMPRS320 Solve systemic problems in the workplace	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 PPMPR4XX Solve systemic problems
Performance Evidence	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has identified and used structured problem-solving strategies to resolve at least two equipment maintenance, product quality and process inconsistency problems for at least two of the following operations:</p> <ul style="list-style-type: none"> • steam generation • electrical power generation • recovered fibre • pulping • chemical recovery • paper finishing and converting • stock preparation • wet end • dry end • water services <p>In doing the above, there must also be evidence that the individual has, for each problem:</p> <ul style="list-style-type: none"> • conducted an analysis to determine a solution • developed an action plan and implementation plans that defines the: <ul style="list-style-type: none"> • scope of the problem • action activities and schedules • resource requirements • budget • contingencies • performance measures • communicated and assisted team members with meeting implementation responsibilities and tasks • monitored and evaluated the effectiveness of the approach and the implementation of the action plan • produced a report outlining the problem-solving process, outcomes and improvement strategies. 	
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"> • structured problem-solving methodologies which can be applied to systemic problems with equipment and product quality in a pulp or paper manufacturing facility • regulatory requirements and workplace procedures relevant to problem solving, including risk and hazard identification, work health and safety, quality, environmental requirements and practices, isolation, housekeeping and standard operating procedures • system, processes and associated services sufficient for problem solving including: <ul style="list-style-type: none"> • plant layout • theory of operation • causes and effects of adjustments made to equipment and processes • relationships between system, processes and associated services • effects of process variables on production and quality • planning procedures to predict possible solutions for problem solving • monitoring and evaluation processes for problem solving techniques • workplace communication and reporting requirements for problem solving processes. 	
Assessment Conditions	
<p>Assessment of the skills in this unit of competency must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • skills must be demonstrated a pulp or paper manufacturing facility or an environment that accurately represents workplace conditions 	

Assessment Conditions	
<ul style="list-style-type: none"> • resources, equipment and materials: <ul style="list-style-type: none"> • plant and system relevant to operational areas • software applications/workplace documentation for developing plans and reports • specifications: <ul style="list-style-type: none"> • workplace and standard operating procedures relating to operational area requiring problem solving, including health and safety, risks and hazards identification, plant isolation, quality, housekeeping and environmental requirements • regulations related to relating to operational area requiring problem solving • manufacturer specifications and fault-finding documentation • specifications: <ul style="list-style-type: none"> • relevant personnel for the purposes of communicating information. <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	

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