



Australian Government

Department of Education, Employment and Workplace Relations

FPPPRS320A Solve systemic problems in the workplace

Release: 1

FPPPRS320A Solve systemic problems in the workplace

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to solve systemic problems in the pulp and paper industry within limits of responsibility

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 operators who solve systemic problems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and describe the problem
- assess the situation and determine actions
- conduct analysis
- determine action plan
- implement plan
- monitor and evaluate the solution, and
- document and report changes

to meet safety, quality and productivity requirements

It does not include identifying and rectifying problems in the workplace

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. Identify and describe the problem	1.1. Problem is identified and described within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Information is gathered to define the type of problem 1.3. Information is gathered to define the extent of the problem 1.4. Information is gathered on the effect of the problem with regard to quality or productivity
2. Assess the situation and determine actions	2.1. Situation is assessed and actions are determined within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Immediate action is taken if safety, quality or productivity are compromised 2.3. Personnel are notified as required 2.4. Problem is referred to appropriate group or department if required 2.5. Possible types of problem solving activities/methodologies available are assessed and most appropriate is determined
3. Conduct analysis	3.1. Analysis is conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Team is assembled for analysis, if required 3.3. Selected problem solving methodology is used 3.4. Possible solutions are determined 3.5. Quick fixes are conducted if required 3.6. Favoured solutions are determined
4. Determine action plan	4.1. Action plan is determined within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping

ELEMENT	PERFORMANCE CRITERIA
	requirements
	4.2. Action plan is developed including contingencies
	4.3. Plan is documented following workplace procedures
	4.4. Plan is communicated to appropriate personnel
	4.5. Plan is approved by appropriate personnel
5. Implement plan	5.1. Plan is implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	5.2. Resources to implement the plan are identified and organised
	5.3. Plan is scheduled
	5.4. Plan is communicated to team and other personnel
	5.5. Team members are assisted where required
	5.6. Planned changes are made to solve the problem
6. Monitor and evaluate the solution	6.1. The solution is monitored and evaluated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	6.2. Changes are monitored
	6.3. Effectiveness of the solution is evaluated
	6.4. Contingency plans are implemented if required
7. Document and report changes	7.1. Changes are documented and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	7.2. Required documentation is finalised
	7.3. Outcome of the solution is reported
	7.4. Outcomes of the solution are communicated to team and appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in solving systemic problems in the workplace
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Reads complex text
- Demonstrates leadership
- Identifies resources and undertakes planning
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate problem solving methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting, as required
- Uses troubleshooting guides and diagnostic procedures
- Interprets instruments, gauges and data recording equipment
- Maintains situational awareness in work area
- Takes samples, conducts tests and interprets results if required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control and other systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to pulp and paper 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
- Leading and managing team processes
- Understanding of resource and planning requirements
- Detailed knowledge of system, processes and associated services sufficient for problem solving including:

REQUIRED SKILLS AND KNOWLEDGE

- 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
- An appropriate range of problem solving methodologies
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Plant operation and control mechanisms
- 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 pulp and paper operations, 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 solving systemic problems in the workplace

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 solving systemic problems in the workplace

Access to the full range of equipment involved in integrated continuous manufacturing 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

EVIDENCE GUIDE

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.

Type and extent of the problem may include:

- quality or equipment problem
- position/location of defect or problem
- continuous or intermittent
- deterioration
- how long has it been occurring
- when/who first observed the problem
- paper quality

Problem solving activities and methodologies may include:

- industry specific methodologies:
 - e-learning tool
 - lean
- root cause analysis techniques
 - 5 whys
 - fish bone
 - sirf roundtable method
 - cause and effect diagrams
 - six sigma

RANGE STATEMENT

- Kepner - Tregoe
- Contingencies may include:
- prioritised list of other possible solutions
 - back up plans
- Resources may include:
- personnel
 - equipment
 - production process
 - materials or supplies
 - trouble shooting guides
- Operations may include:
- coating systems
 - handling and preparing primary resources
 - steam generation
 - electrical power generation
 - handling and preparing waste paper for pulp production
 - waste paper operations
 - pulping operations
 - chemical recovery operations
 - finishing and converting
 - stock preparation operations
 - wet end operations
 - dry end operations
 - water services
- Equipment may include:
- communication equipment and 2-way radios
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to plant operations and systems
- Electronic control systems may include:
- Digital Control Systems (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - statutory requirements (local, state and commonwealth)
 - relevant operator licences and endorsements
- Documentation, procedures and reports may include:
- SOP
 - quality procedures

RANGE STATEMENT

- environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation (e.g. plant clearance, job safety analysis, permit systems)
 - Material Safety Data Sheets (MSDS)
 - furnish sheets
 - tally sheets
 - process and instrument diagrams
 - process improvement systems
 - planning documents
 - small group presentations
 - minutes of meeting
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Sampling and testing may include:
- stock consistency
 - stock colour
 - stock brightness
 - water quality
 - waste paper quality
 - visual assessments
 - stickies
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - maintenance services
 - operational management
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement

RANGE STATEMENT

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. 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