



Australian Government

Assessment Requirements for PPMEPG440 Troubleshoot and rectify power generation system

Release: 1

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Modification History

Release	Comment
1	<p>Replaces equivalent unit FPPEPG440A Troubleshoot and rectify power generation system, which was first released with FPP10 Pulp and Paper Manufacturing Industry Training Package Version 1.0. This is the first release of this unit in the new standards format.</p> <p>Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including 'Required Skills and Knowledge, Evidence Guide and Range Statement'.</p>

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must be able to provide evidence that they can troubleshoot and rectify power generation systems in the pulp and paper industry by:

- identifying, diagnosing and rectifying faults in plant, equipment and processes relevant to power generation systems, at least twice in line with required enterprise intervals, in a pulp or paper manufacturing facility
- selecting and using appropriate troubleshooting methods for power generation systems
- reading and interpreting documentation, procedures and reports relevant to troubleshooting and power generation systems
- communicating effectively and working safely with others, in the work area when troubleshooting and rectifying power generation systems.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- troubleshooting methods applicable to the operation power generation systems
- documentation and procedures relevant to troubleshooting and rectifying power generation systems in the pulp and paper industry including:
 - work health and safety (WHS) including high risk load shifting licensing requirements
 - Standard Operating Procedures (SOP)
 - productivity requirements
 - quality procedures
 - environmental sustainability requirements/practices
 - machinery and plant manufacturing operating manuals
 - enterprise policies and procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation including plant clearance, job safety analysis, permit systems
 - operational logs and reports
 - maintenance logs
 - Material Safety Data Sheets (MSDS)
 - process and instrument diagrams
- power generation systems, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to power generation system and processes
- relationships between power generation system and associated services
- sampling and testing for plant and system operations, and process steam supply monitoring – purpose, standards and procedures as per site agreements
- types, causes and effects of power distribution systems and power generation plant shutdowns
- effect of steam quality on turbine operation
- operational tolerances of the turbine system and the effect of operating outside these tolerances
- AC/DC generation principles
- output control and regulation principles
- power factor characteristics, effects and correction techniques
- electrical isolation procedures
- principles of operation of transformers and circuit protection systems
- electronic and other control systems, operation and application to make appropriate adjustments that control power generation systems.

Assessment Conditions

The following resources must be made available:

- access to the full range of equipment involved in integrated continuous manufacturing of power generation systems in a pulp or paper manufacturing facility, including chemical products and systems
- electronic control systems which includes Digital Control System (DCS), touch screens or robotics
- sample workplace documentation, procedures and reports including SOP, quality procedures, environmental sustainability requirements/practices, plant manufacturing operating manuals, enterprise policies and procedures, plant isolation documentation, safe work documentation including plant clearance, job safety analysis, permit systems.
- maintenance tools and equipment and consumables for power generation systems
- personal protective equipment suitable for troubleshooting power generation systems
- local power authority regulations for starting up power generation systems
- details of production requirements to plan power generation levels
- template operating log for recording troubleshooting processes and power generation performance
- relevant personnel for the purposes of communicating information
- organisational workplace health and safety and standard operating procedures for power generation system.

Competency is to be assessed in the workplace or in a productive environment that accurately reflects performance in a workplace.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume Implementation Guide -

<http://www.skillsimpact.com.au/pulp-and-paper/skills-standards-and-qualifications/>