



Australian Government

Department of Education, Employment and Workplace Relations

FPPSTM2A Monitor and control boiler operation

Release: 1

FPPSTM2A Monitor and control boiler operation

Modification History

Not applicable.

Unit Descriptor

Not applicable.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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Element	Performance Criteria
1 Confirm operational status.	1.1 Continuing process supplies are maintained.
	1.2 Combustion processes are confirmed to be within operational specifications.
	1.3 Operational log confirms boiler performance parameters have been within specifications.

- 1.4 Operational status is communicated to relevant personnel.
 - 1.5 Work is completed within OH&S, Standard Operating Procedures (SOP), environmental and safe working requirements and practices.
- 2 **Monitor and control boiler and ancillary plant operation.**
 - 2.1 Operational status is confirmed by visual and audible observations, and process monitoring systems.
 - 2.2 Water quality tests are conducted according to SOP.
 - 2.3 Steam pressures are monitored and maintained as required.
 - 2.4 Fuel efficiency calculations/recordings are made in compliance with SOP.
 - 2.5 Boiler control adjustments are made in accordance with SOP to maintain operation within specification.
 - 2.6 Boiler water chemicals levels tested and adjusted as required by SOP.
 - 2.7 Make up pre-treatment systems for water to be monitored, tested and maintained as per SOP.
 - 2.8 Steam distribution systems are monitored and maintained to client requirements.
 - 2.9 Operator level maintenance is carried out according to SOP.
 - 2.1 Work is completed within OH&S, SOP,
0 environmental and safe working requirements and practices.
- 3 **Place boiler in stand-by/banked/stored mode.**
 - 3.1 Fuel and air supplies are shutdown according to SOP.
 - 3.2 Steam pressures and water condition and levels are maintained and monitored.
 - 3.3 Relevant personnel/customers are notified of system status in compliance with SOP.

- 3.4 Work is completed within OH&S, SOP, environmental and safe working requirements and practices.
- 4 **Record and document boiler and plant performance.**
 - 4.1 Operating log is maintained in accordance with SOP requirements.
 - 4.2 Maintenance requirements are identified and documented.

Required Skills and Knowledge

Not applicable.

Evidence Guide

Explains and implements isolation and access procedures.
Describes plant layout and status identification.
Explains purpose and operation of plant and systems.
Reads and interprets instruments, gauges and data recording equipment.
Conducts pre-operational checks.
Starts up and operates boiler system.
Reads and interprets specifications and customer orders.
Reports and documents information.
Uses effective verbal and written communication.
Explains boiler water treatment system and reasons for treatment.
Explains statutory responsibilities.
Complies with all OH&S requirements.
Completes all pre-start checks and procedures.
Sets-up and starts boiler within specified time.
Handles and/or rectifies start-up problems in compliance with SOP or site agreements.
Safely places boiler in standby mode, banked mode, stored mode, and status maintained in accordance with SOP.
Maintains documentation requirements.
Inspects and maintains boiler and auxiliary equipment and services to operating standards.
Works within OH&S, SOP, environment and safe working requirements and practices.
Explains and implements isolation and access procedures.
Describes plant layout and status identification.
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Range Statement

Range Statement

The competencies described in this group of units relate to those functions inclusive of the following boiler types:

Please note:

A single Range Statement has been prepared to cover all Units in Steam Generation. The actual context/conditions for each Unit would be drawn from the mill's customised version of this Range Statement.

- . fire tube
- . saturated boiler
- . water tube
- . super heated

and may be operated in conjunction with other steam driven plant and operations including:

- . paper making machines
- . turbines
- . digesters
- . heating plant

Materials/supplies:

- . chemicals
- . coal
- . oil
- . gas
- . additives
- . air
- . water
- . wood waste
- . steam
- . recovery process products
- . power

Equipment:

Equipment appropriate to steam generation processes and may include the following:

- . boiler and auxiliary plant
- . boiler heating systems
- . fuel and fuel delivery system plant
- . dust removal and combustion waste
- . fuel management system
- . extraction systems
- . water distribution systems
- . compressed air systems
- . steam temperature control plant
- . chemical dosing system
- . water treatment system
- . flare detection equipment
- . hand and power tools

Legislation, policy and procedures:

- . OH&S
- . environmental and statutory legislation

- . enterprise policies and procedures
- . Standard Operating Procedures (SOP)
- . appropriate boiler/pressure vessel operator certification

Documentation/procedures/reports:

- . SOP
- . job sheets
- . grade specifications
- . manufacturer's specifications
- . maintenance logs
- . statutory requirements
- . Materials Safety Data Sheets (MSDS)
- . operator's log
- . process and instrument diagrams

Maintenance:

- . as per site agreement
- . maintenance schedules
- . maintenance systems

Sampling/testing: [excludes FPPSTM3A]

- . feed water quality
- . assessments of process operations

Technology:

- . fully automated, semi automated, manually operated plant and equipment
- . enter/extract computer data, electronic screens and alarms, analogue and digital instrumentation

Communication channels:

- . internal/external customers and suppliers
- . statutory authorities
- . team members
- . maintenance/services co-ordinators
- . maintenance services

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Unit Sector(s)

Not applicable.