



Australian Government

FWPCOT4206 Plan and coordinate boiler operations

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPICOT4206B Plan and coordinate boiler operations, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to plan the operation of a steam generated boiler and to coordinate boiler operating personnel to startup, operate, shutdown, clean and store the boiler.

The unit applies to boiler plant operators in a timber treatment plant setting and also involves monitoring and adjusting boiler performance.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Unit Sector

Sawmilling and Processing

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Plan boiler operation	1.1 Interpret requirements for the allocated process to calculate steam generation levels. 1.2 Plan and document operational orders and schedules to meet

ELEMENTS	PERFORMANCE CRITERIA
	production requirements. 1.3 Plan boiler startup, operation and shutdown in line with production requirements. 1.4 Communicate all information to operators in line with organisational procedures.
2. Coordinate boiler startup and operation	2.1 Check boiler house chemicals for correct labelling to ensure compliance with safety, and regulatory requirements. 2.2 Direct operator processes for completing pre-operational safety and pre start-up checks. 2.3 Monitor boiler startup for correct running conditions and sign on. 2.4 Routinely check continued operation and condition of boiler with operators and assist them to evaluate boiler data and performance. 2.5 Modify generation levels to ensure optimum performance and communicate changes to operators. 2.6 Diagnose problematic boiler operations, calculate required adjustments and communicate to operators. 2.7 Monitor and evaluate boiler operations and output to determine process improvements. 2.8 Direct emergency shutdown processes in cases of fire.
3. Coordinate boiler shutdown, storage and records	3.1 Direct operator processes for shutting down equipment and ensure compliance with organisational safety procedures. 3.2 Check removal of valves and fittings and inspect boiler. 3.3 Assess boiler condition, direct operator cleaning processes and ensure compliance with environmental protection practices. 3.4 Select storage mode and direct operators to store boiler in line with organisational procedures. 3.5 Obtain operating logs and fuel efficiency records from operators and complete operating calculations. 3.6 Document and report operational records, equipment faults and process improvement recommendations to appropriate personnel.

Foundation Skills

This section describes those core and employment skills that are essential to performance and

are not explicit in the performance criteria.	
Numeracy skills to:	• complete calculations for steam generation levels against production requirements • read basic numerical machine settings to monitor boiler performance • record numerical data involving fuel efficiency.
Oral communication skills to:	• provide clear and unambiguous information and instructions to operators.
Reading skills to:	• interpret documents about production requirements.
Writing skills to:	• develop documents in a style and format easily understood by others: • operational orders and boiler schedules • reports on potential process improvements including rationale for recommendations • complete accurate basic records of boiler operations and equipment faults.
Planning and organising skills to:	• source, collect and organise data to inform boiler schedules and process improvement reports • efficiently and logically manage operational logistics for boiler operations.
Teamwork skills to:	• take responsibility for coordinating a team of operators for effective boiler operations.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT4206B Plan and coordinate boiler operations

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT4206 Plan and coordinate boiler operations

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1	Replaces equivalent unit FPICOT4206B Plan and coordinate boiler operations, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. 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

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- plan and coordinate boiler operations for different operational periods in line with production requirements for each period
- determine, document and communicate operational orders and boiler schedules for each of the above operational periods
- monitor and assess boiler performance and steam generation levels during each of the above operational periods and modify levels to ensure optimum performance
- complete records for operational outcomes for each of the above periods of operation
- complete a detailed report about systematic issues arising across the operational periods covering problems with processes, outputs and equipment including recommendations for process improvements.

Knowledge Evidence

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

- environmental protection practices for boiler operations:
 - cleaning plant, tools and equipment
 - disposing of hazardous substances

- energy generation capacity of organisational steam generating boilers and methods used to calculate steam and energy generation levels
- energy generation capacity of organisational steam generating boilers and methods used to calculate steam and energy generation levels
- processes for boiler startup, shutdown and storage
- methods of determining boiler schedules to meet production requirements
- range of data used to evaluate boiler performance:
 - steam levels
 - pressure levels
 - energy generation levels
 - heat build-up
 - system overload information
 - test outcomes for water quality and chemicals
 - past performance records
- methods used to:
 - diagnose problems with boiler operations
 - safely handle and store boiler house chemicals
 - inspect boilers after shutdown
- format, content and use of:
 - operational orders
 - boiler schedules
 - operating logs and operational records
 - fuel efficiency records
 - process improvement reports
- organisational procedures specific to planning and coordinating boiler operations:
 - communication reporting lines for operator team members and self
 - documenting operational orders, boiler schedules and reports
 - recording and reporting operational outcomes and equipment faults.

Assessment Conditions

The following resources must be made available:

- steam-generating boilers, including liquid or vapour restricted to water or steam
- fuel and fuel supply system
- boiler house chemicals and labels
- personal protective equipment suitable for operating steam boilers
- template:
 - operational orders
 - boiler schedules
 - operating logs and operational records
 - fuel efficiency records

- process improvement reports
- records for equipment faults
- details of production requirements
- organisational procedures for planning and coordinating boiler operations.

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

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.

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