



Australian Government

FWPCOT3231 Operate steam boiler

Release: 1

FWPCOT3231 Operate steam boiler

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT3231B Operate steam boiler, 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 start up, operate and store a steam-generating boiler.

The unit applies to steam boiler operators in a timber processing plant setting and includes shutting down and cleaning equipment.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication and may differ according to jurisdiction.

Pre-requisite Unit

Nil

Unit Sector

Sawmilling and Processing

Timber Manufactured Products

Wood Panel and Board Production

Elements and 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. Prepare for operation	1.1 Review operational order and where required check with appropriate personnel. 1.2 Select appropriate personal protective equipment and check for operational effectiveness. 1.3 Identify and set quantity of steam to be generated for allocated process.

	1.4 Plan steam generation in line with work order.
2. Operate and monitor boiler	2.1 Use equipment in line with organisational safety procedures, manufacturer's instructions and environmental protection practices. 2.2 Complete pre-operational safety and pre start-up checks to ensure operational effectiveness. 2.3 Start boiler and bring safely on line; communicate recent performance to appropriate personnel. 2.4 Assess continued operation of boiler against pre-operational checks, maintenance requirements and operating conditions. 2.5 Monitor boiler operation, diagnose status and adjust to maintain safe and efficient operation. 2.6 Store and record boiler house chemicals, in line with safety procedures and environmental protection practices. 2.7 Follow emergency shutdown procedures in cases of fire. 2.8 Complete operating log, record fuel efficiency and report to appropriate personnel.
3. Shut down and store boiler	3.1 Follow organisational safety procedures to shut down equipment. 3.2 Prepare boiler for inspection process; remove valves and fittings in line with organisational safety procedures. 3.3 Clean boiler externally and internally if appropriate in line with environmental protection practices. 3.4 Select storage mode and store boiler in line with organisational safety procedures. 3.5 Record and report and equipment faults and maintenance requirements 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:	• read basic numerical machine settings and select according to operational requirements • record numerical data involving fuel efficiency • calculate approximate heating requirements and volumes of steam • measure and record chemical usage
Oral communication	• ask questions and actively listen to clarify contents of operational

skills to:	orders.
Reading skills to:	• interpret: • workplace health and safety and other organisational procedures including Material Safety Data Sheets • operational orders • manufacturers' instructions and maintenance recommendations.
Writing skills to:	• complete accurate basic records for boiler operations, equipment faults and maintenance requirements.
Planning and organising skills to:	• efficiently and logically sequence the stages of boiler start up, shut down and cleaning using work order to guide activities.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3231B Operate steam boiler

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 FWPCOT3231 Operate steam boiler

Modification History

Release	Comment
	Replaces equivalent unit FPICOT3231B Operate steam boiler, 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:
- follow organisational policies and procedures relevant to operating a steam boiler
- start, operate, monitor and shut down a steam boiler in line with statutory requirements and standard operating procedures
- prepare boiler for annual inspection
- complete operating and maintenance logs

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
- characteristics and dangers of steam
- purpose, features and operation of :
 - steam-generating boilers, including liquid or vapour restricted to water or steam
 - fuel and fuel supply system
- processes for boiler startup, shutdown, cleaning and storage
- 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:
 - remove valves and fittings
 - clean boilers internally and externally
 - safely handle and store boiler house chemicals
- organisational procedures specific to operating steam boilers:
 - workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - recording and reporting operating logs, fuel efficiency records, equipment faults and maintenance requirements.

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
- manufacturers' instructions for use and maintenance of equipment
- operational order with specific instructions for required steam generation levels and quantities and operating times
- template documents:
 - operating logs
 - fuel efficiency records
 - records of equipment faults and maintenance requirements
- organisational procedures for operating steam boilers.

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.

Links

Companion Volume implementation guides are found in VETNet -

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