

**Modification history**

| Release   | Comments  |
|-----------|---|
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 8.0. |

| FWPCOT3XXX               | Conduct heat plant operations  |
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| <b>Application</b>       | <p>This unit of competency describes the skills and knowledge required to prepare for, start up, operate, shut down and store an energy producing heat plant.</p> <p>The unit applies to individuals who operate heat plants in a timber or wood products production facility.</p> <p>All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p> |
| <b>Prerequisite Unit</b> | Nil  |
| <b>Unit Sector</b>       | Common Technical (COT)   |

| Elements   | Performance Criteria  |
|--|---|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>  |
| 1. Prepare for heat plant operations             | 1.1 Determine job requirements from work order or instruction and where required check with appropriate personnel<br>1.2 Confirm workplace health and safety requirements, including emergency procedures, and environmental procedures for the tasks<br>1.3 Identify hazards, assess risks and determine control measures associated with energy generating heat banks<br>1.4 Select appropriate personal protective equipment and check for operational effectiveness<br>1.5 Identify and set quantity of energy to be generated for allocated process as specified in work order<br>1.6 Check heat plant chemicals for correct labelling to ensure compliance with safety and regulatory requirements<br>1.7 Complete pre-operational safety and pre-start-up checks to ensure operational effectiveness of heat plant |
| 2. Operate and monitor heat plant                | 2.1 Start heat plant according to workplace procedures<br>2.2 Assess heat plant condition for anomalies during start up and rectify or report to relevant personnel according to workplace procedures<br>2.3 Monitor heat plant operation, diagnose status and adjust to maintain safe and efficient operation<br>2.4 Shut down heat plant in cases of fire according to emergency procedure<br>2.5 Record and report heat plant operations and fuel efficiency to appropriate personnel  |
| 3. Shut down and store heat plant                | 3.1 Isolate and shut down heat plant according to workplace safety procedures<br>3.2 Remove or replace valves and fittings according to workplace procedures, if required<br>3.3 Maintain cleanliness of heat plant and plant room according to workplace procedures<br>3.4 Select storage mode and store heat plant according to workplace procedures<br>3.5 Record and report equipment faults and maintenance requirements to appropriate personnel  |

| <b>Foundation Skills</b>   |   |
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| <i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i> |   |
| <b>Skill</b>   | <b>Description</b>  |
| Reading  | <ul style="list-style-type: none"> <li>Interpret routine technical documents such as instruction manual for heat plant</li> </ul>   |
| Writing  | <ul style="list-style-type: none"> <li>Complete routine records for heat plant operations, equipment faults and maintenance requirements</li> </ul>   |
| Oral Communication   | <ul style="list-style-type: none"> <li>Ask questions and actively listen to clarify contents of operational orders</li> </ul>   |
| Numeracy   | <ul style="list-style-type: none"> <li>Interpret basic numerical machine settings, gauges and data recording equipment</li> <li>Record numerical data involving fuel efficiency</li> <li>Measure and record chemical usage</li> </ul> |

| <b>Unit Mapping Information</b>             |   |   |                           |
|---|---|---|---------------------------|
| <b>Code and title current version</b>       | <b>Code and title previous version</b>                  | <b>Comments</b>   | <b>Equivalence status</b> |
| FWPCOT3XXX<br>Conduct heat plant operations | FWPCOT3232<br>Operate heat plant                        | Redesigned unit that includes content from FWPCOT3232 Operate heat plant and FWPCOT4207 Plan and coordinate heat plant operations | Not equivalent            |
| FWPCOT3XXX<br>Conduct heat plant operations | FWPCOT4207<br>Plan and coordinate heat plant operations | Redesigned unit that includes content from FWPCOT3232 Operate heat plant and FWPCOT4207 Plan and coordinate heat plant operations | Not equivalent            |

| <b>Links</b> |  |
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|              | Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a> |

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|--|---|
| <b>TITLE</b>   | <b>Assessment requirements for FWPCOT3XXX Conduct heat plant operations</b> |
| <b>Performance Evidence</b>  |   |
| <p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has prepared for, started up, monitored and shut down heat plant operations for a timber or wood products production facility for two production cycle with different specified energy generation requirements.</p> <p>In the course of this work, the individual has:</p> <ul style="list-style-type: none"> <li>• followed workplace health and safety requirements</li> <li>• conducted pre-operational checks on heat plant</li> <li>• diagnosed and adjusted control settings during operation</li> <li>• identified and rectified or reported heat plant operating faults</li> <li>• handled and labelled heat plant chemicals correctly</li> <li>• prepared heat plant for periodic inspection</li> <li>• completed operational and maintenance reports.</li> </ul>   |   |
| <b>Knowledge Evidence</b>  |   |
| <p>An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:</p> <ul style="list-style-type: none"> <li>• environmental protection practices for heat plant operations: <ul style="list-style-type: none"> <li>• cleaning plant, tools and equipment</li> <li>• disposing of hazardous substances</li> </ul> </li> <li>• characteristics and dangers of heat and energy generated by heat plants</li> <li>• purpose, features and operation of energy generating heat plants</li> <li>• energy generation capacity of workplace heat plants</li> <li>• processes for heat plant start up, shutdown, cleaning and storage</li> <li>• range of data used to evaluate heat plant performance: <ul style="list-style-type: none"> <li>• heat levels</li> <li>• pressure levels</li> <li>• energy generation levels</li> <li>• heat build-up</li> <li>• system overload information</li> <li>• monitor fuel usage</li> <li>• past performance records</li> </ul> </li> <li>• types, uses and labelling of heat plant chemicals, including safe handling and storage</li> <li>• methods used to: <ul style="list-style-type: none"> <li>• monitor operation and diagnose status of heat plant</li> <li>• remove valves and fittings</li> <li>• clean plant and plant room</li> </ul> </li> <li>• workplace procedures specific to operating heat plants: <ul style="list-style-type: none"> <li>• health and safety with particular emphasis on emergency shutdown, equipment lock out and use of personal protective equipment</li> <li>• communication reporting lines</li> <li>• recording and reporting on operational and fuel efficiency data, equipment faults and maintenance requirements.</li> </ul> </li> </ul> |   |
| <b>Assessment Conditions</b>   |   |
| <p>Assessment of the skills in this unit of competency must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions: <ul style="list-style-type: none"> <li>• skills must be demonstrated in a work environment or an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and materials: <ul style="list-style-type: none"> <li>• energy generating heat plant</li> </ul> </li> </ul>  |   |

| <b>Assessment Conditions</b>   |  |
|--|--|
| <ul style="list-style-type: none"> <li>• heat plant chemicals and labels</li> <li>• valves and tools for replacing valves</li> <li>• personal protective equipment suitable for operating heat plants</li> <li>• specifications: <ul style="list-style-type: none"> <li>• workplace procedures for operation of energy generating heat plants</li> <li>• templates for documenting relevant information on heat plants operations</li> <li>• manufacturer safety data sheets for chemicals used in heat plants operations</li> <li>• workplace health and safety and environmental policies and procedures applicable to energy generating heat plants.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p> |  |
| <b>Links</b>   | Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a> |