



Australian Government

PUAFIR326 Push trees with machines in forest fire control operations

Release: 1

PUAFIR326 Push trees with machines in forest fire control operations

Modification History

Release 1. This is the first release of this unit of competency in the PUA Public Safety Training Package.

Application

This unit of competency involves the skills and knowledge required to apply machine operation skills to the specific circumstances of fire operations. It includes fire control line construction, pushing trees, clearing vehicle turnarounds and passing bays, constructing helipads at a wildfire on forested land and completing rehabilitation activities. Work at this level will be carried out under direction with limited supervision.

The unit applies to personnel who will be directed to push trees using machinery to support fire operations.

The fire sector is those sections of government departments, statutory authorities or organisations that have responsibility under jurisdictional arrangements for the delivery of firefighting and fire management services.

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

Pre-requisite Unit

Not applicable.

Competency Field

Fire

Unit Sector

Fire

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1 Use and service machine**
 - 1.1** Machinery is set up and preparation checks are undertaken to ensure safe operation in forest environments that are free of soil and water borne disease and weeds prior to and after use
 - 1.2** Effective communication is established with supervisor, team members and support vehicles
 - 1.3** Safe work procedures are employed when using machinery to push tree
 - 1.4** Machinery is parked safely and securely when not in operation
 - 1.5** Personal protective clothing and equipment is worn and used, in accordance with organisational procedures
- 2 Plan to push tree**
 - 2.1** Obtain briefing and confirm work to be undertaken
 - 2.2** Hazardous tree marking system is interpreted and actioned for each tree
 - 2.3** Tree is assessed for suitability for pushing with machinery
 - 2.4** Topographical factors and vegetation are considered when planning to push tree using machinery
 - 2.4** Environmental, cultural and heritage factors are considered in relation to area where trees will be pushed
 - 2.5** Approval is sought and gained for tree to be pushed with machinery
 - 2.6** Hazards and safe clearances are established around trees selected for pushing with machinery
 - 2.7** Escape routes are identified, in accordance with organisational procedures
 - 2.8** Support personnel are warned of tree to be pushed with machinery
- 3 Push tree**
 - 3.1** Communication is maintained with ground crew during tree pushing operations
 - 3.2** Ground is prepared for tree pushing with machinery
 - 3.3** Direction of tree fall is determined

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|---|------------|--|
| | 3.4 | Tree is pushed with machinery applying safe tree pushing practices |
| | 3.5 | Apply fireground emergency procedures |
| 4 Undertake mop up and rehabilitation activities | 4.1 | Trees and debris are cleared for safe access to safety zone escape routes and to allow for mop up work |
| | 4.2 | Area, where trees have been pushed by machinery, is made safe for organisational personnel to enter |
| | 4.3 | Rehabilitation activities are conducted, in accordance with organisational procedures |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

machine must include one or more of the following

- bulldozer
- excavator
- faller buncher
- front end loader
- harvester

and must be fitted with

- Falling Object Protection Systems (FOPS)
- Roll Over Protection Systems (ROPS)

Unit Mapping Information

This unit replaces and is equivalent to PUAFIR322 Push trees with machines in forest fire control operations.

Links

PUA Training Package Companion Volume Implementation Guide is found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=3eca5672-6d5a-410b-8942-810d0ba05bbf>

Assessment Requirements for PUAFIR326 Push trees with machines in forest fire control operations

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions on at least one occasion and includes

- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) organisational requirements
- assessing and planning to push trees using machinery
- considering topography, vegetation, environmental, cultural and heritage factors
- communicating within the chain of command
- implementing safe work procedures including
 - communicating with fire control line supervisors and support vehicles
 - ensuring FOPS and ROPS are correctly fitted and used
 - maintenance of contact and communication with support vehicles
 - positioning in relation to live fire edge and fire intensity
 - providing assistance to vehicles and personnel working with machines
 - survival techniques in burn over situations
 - wearing personal protective clothing and equipment
 - wearing seatbelts in cabin
 - working within limits of machine capability
- identifying hazards and risks including exposures
- maintaining communication with support personnel and vehicles
- operating machines in a fire and non-fire environment
- participating in briefing sessions
- performing basic maintenance and ensuring servicing of machinery in fire and non-fire environments
- performing pre-start checks
- preparing ground for tree pushing
- pushing trees in support of fire operations safely
- seeking and gaining permission to complete actions
- undertaking mop up and rehabilitation activities
- using safe tree pushing practices including not rocking trees, avoiding obstacles such as tree roots, stumps and rocks, determining direction of approach relative to proposed direction of

fall, recognising minimum and gradual power application to effect tree fall, being aware of point of contact with machine and using blade and/or tree arm for optimal leverage

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions and includes knowledge of

- assessment of hazards and risks including characteristics of trees, cultural and heritage factors, environmental factors, hazards and risks including exposures, topographical factors and vegetation, burn over survival techniques and capabilities of support vehicles
- ground preparation including clearing escape route, clearing vegetation and obstacles such as logs and rocks around trees, creating ramp for pushing and ripping or severing roots of tree to be pushed
- hazards and risks including exposures
- machine capabilities, limitations, design and safety features
- machine maintenance requirements in a fire ground environment
- organisational documentation, policies and procedures including operating machines
- personal protective clothing and equipment
- rehabilitation works
- re-start and post work check procedures
- safe work procedures including
 - assistance to vehicles and personnel working with machines
 - communication with fire control line supervisors and support vehicles
 - ensuring FOPS and ROPS are correctly fitted and used
 - fire ground emergencies
 - maintenance of contact and communication with support vehicles
 - position in relation to live fire edge and fire intensity
 - survival techniques in burn over situations
 - wearing personal protective clothing and equipment
 - wearing seatbelts in cabin
 - working within limits of machine capability
- safe tree pushing practices including
 - avoiding obstacles such as tree roots, stumps and rocks
 - awareness of point of contact with machine
 - considering characteristics of hazardous tree
 - considering rehabilitation activities
 - direction of approach relative to proposed direction of fall
 - minimum and gradual power application to effect tree fall
 - not rocking tree
 - use of blade and/or tree arm for optimal leverage

- wildfire control tactics and techniques
- Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) organisational requirements including risk mitigation

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in industry approved simulated workplace operational situations that reflect workplace conditions.

Competency should be assessed in an organisational/agency approved operational environment or in a field based simulated wildfire environment; pushing trees by machinery should be assessed in a forest environment.

Resources for assessment must include access to

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, equipment, tools and personal protective clothing and equipment currently used in industry including
 - trees requiring pushing, machinery and communications equipment
- applicable documentation including organisational procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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