



Australian Government

PUAFIR417 Supervise machinery use in wildfire operations

Release: 1

PUAFIR417 Supervise machinery use in wildfire 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 task and supervise the use of machinery to undertake a range of activities to support fire ground operations. It includes control line construction and rehabilitation, reduction and removal of hazards, improvement of existing tracks and roads, creating access and egress to control lines, constructing helipads and assisting in blacking out.

The unit applies to personnel who supervise machine operators and who provide an essential interface between machine operators and the command structures at fire incidents.

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

It is essential that the prerequisite units listed below are obtained prior to the issuance of this unit to individuals within the fire sector or the units contributing to the attainment of a fire qualification.

PUAFIR303 Suppress wildfire

Competency Field

Fire

Unit Sector

Fire

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Assess work area

- 1.1** Risk assessment of fire site is undertaken and hazards and assets at risk are identified and inspected
- 1.2** Trees to be pushed are identified, marked for attention, options to avoid pushing trees are examined and permission to remove trees is obtained
- 1.3** Terrain through which tasks must be undertaken to achieve incident objectives is assessed
- 1.4** Route is selected, assessed and marked for construction of control line and removal or avoidance of hazards and to determine the most appropriate path and type of machinery suitable for wildfire operations activity
- 1.5** Consultation and communication with land owners and managers is undertaken prior to machinery entering the property

2 Brief and task machine operators

- 2.1** Personnel are briefed on strategies and tactics to be implemented by machine operators, in accordance with organisational procedures and the incident action plan
- 2.2** Machine operators are tasked and briefed on work standards and safe work practices to be adhered to
- 2.3** Reporting arrangements between machine operators, fire crew and supervisor are outlined
- 2.4** Machine operators are checked to confirm that they are wearing appropriate personal protective clothing and equipment
- 2.5** Appropriate communications equipment is provided and instructions for use is given to machine operators
- 2.6** Machinery is inspected to ensure compliance with safety requirements
- 2.7** Machinery is selected to ensure compliance with work and/or contract requirements
- 2.8** Machinery is checked for compliance with hygiene guidelines in respect to spread of disease and weeds and remedial action is taken, as required
- 2.9** Anchor points, escape routes and safety zones are established and communicated to personnel in the area

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| 3 Supervise use of machinery | <ul style="list-style-type: none">3.1 Machinery safety requirements are monitored throughout wildfire operations3.2 Near misses or accidents are reported, in accordance with organisational procedures3.3 Communications with machine operators, support crew and the chain of command are maintained, in accordance with organisational procedures and the communication plan3.4 Location and standard of construction of control line is adapted to changes in fire behaviour and intensity3.5 Fire spread and location of the control line is monitored, taking into account changes in fuel, weather and topography3.6 Progress of delegated tasks is monitored and regular reports are provided to appropriate supervisor3.7 Performance of delegated tasks by machine operators is monitored, in accordance with organisational procedures and code of practice3.8 Fuel and maintenance requirements are monitored and requests are organised through the chain of command3.9 Minimisation of machine operations damage to agricultural, environmental, forestry, cultural and other community assets is ensured3.10 Records of machine and operator work hours are maintained and provided to relevant personnel, in accordance with organisational procedures |
| 4 Conduct mop up and support activities | <ul style="list-style-type: none">4.1 Machine operators are tasked and mop up and support activities are carried out, in accordance with organisational procedures4.2 Threats to security of the perimeter or a sector of the fire are identified and reported on through the chain of command4.3 Rehabilitation of fire control lines no longer required is undertaken |
| 5 Recover and maintain equipment | <ul style="list-style-type: none">5.1 Requests for repairs or maintenance of machinery are communicated through the chain of command |

- 5.2 Damaged or missing equipment is recorded and/or reported, 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.

risk assessment of the site must include

- fire behaviour
- fuel type
- terrain
- weather conditions

Unit Mapping Information

This unit replaces and is equivalent to PUAFIR415 Supervise machinery use in wildfire 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 PUAFIR417 Supervise machinery use in wildfire 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 and monitoring safe work practices during fire suppression activities including control line construction and pushing trees
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) organisational requirements
- assessing work area including hazards and risks
- briefing and tasking machine operators
- communicating with machine operators
- conducting mop up and support activities
- constructing anchor points and safety zones including burnt areas, clearings, rivers, site of a recent wildfire or prescribed burn, static water bodies and area of safety zone suitable for fire size
- cooperating with support vehicle personnel
- ensuring hazardous trees have been marked for attention
- establishing and maintaining work standards of machine operators
- implementing strategies
- maintaining communication
- maintaining health and safety of people in wildfire area
- monitoring and reporting on machinery operations in fire suppression activities
- recovering and maintaining equipment
- reviewing options
- selecting and marking routes for fire control line construction
- supervising personnel and the use of machinery
- wearing personal protective clothing and equipment

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

- asset categories
- Australasian Inter-service Incident Management System (AIIMS)
- communications equipment
- fire control line construction including anchor points and safety zones, asset protection, capabilities of support vehicles, fire control line construction rates and construction standards, using machines to construct control lines, construction guidelines and tandem operations
- isolation of hazards
- mop up and support activities
- options available with control lines
- organisational documentation, policies and procedures
- personal protective clothing and equipment
- potential hazards
- processes for planning for the availability of machines and operators
- protection of environmental, structural, infrastructure, cultural and agricultural assets
- records for time keeping and reporting requirements
- role and responsibilities of machine supervisor
- role of machines in mopping up
- safety including communication, machine requirements, mutual support, operator safety, operating procedures, safe work practices including those for working around trees, survival techniques when threatened by wildfire and personnel welfare
- strategies and tactics for firefighting
- tree marking including hazardous tree and track marking system
- types of control line construction
- types of hazards including burns, disorientation, environmental, fatigue, heat related illness, falling objects, branches and trees, lack of visibility, machines, manual handling, overhead hazards, beehives, powerlines, trees weakened by fire, rot or cracks, rolling objects, smoke inhalation, snake or insect bites, sprains or fractures, terrain and soil types, trips and falls and water bombing operations
- types of machinery, their capabilities and limitations including bobcat - skid steer loader, brompton rat, bulldozer, excavator, front end loader, grader, scrub rollers, tractor with blade or plough and wheeled dozer and log skidder with blade
- use of machines in wildfire operations including
 - arrangements regarding organisational, private and contracted equipment
 - capabilities of supporting fire units
 - general servicing and maintenance requirements of machines
 - machine design and safety features
 - machine set up and capabilities
 - organisational requirements for engagement of machines
 - transport of machines
- Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) legislated requirements including risk mitigation and safe work procedures

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 demonstrated and assessed over time in a range of field based environments.

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
 - wildfire or prescribed burn and machinery
- applicable documentation including organisational procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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