



Australian Government

PUAFIR402 Conduct simple prescribed burns

Release: 1

PUAFIR402 Conduct simple prescribed burns

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 prepare, conduct and evaluate simple prescribed burns in accordance with approved burn plans.

A prescribed burn is the controlled application of fire under specified environmental conditions to a predetermined area and at the time, intensity and rate of spread required to attain planned resource management objectives. A simple prescribed burn is characterised by low risk, low intensity, small area, low potential impact on assets, completion in one shift and minimal variation of fuel and terrain.

A prescribed burn plan is an approved plan for the conduct of prescribed burning, it includes a map identifying the area to be burned and incorporates the specifications and conditions under which the operation is to be conducted.

The unit is applicable to personnel responsible for preparing, conducting and evaluating a simple prescribed burn on public and private land.

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

Elements describe the essential outcomes.

1 Prepare to burn

2 Conduct burn

PERFORMANCE CRITERIA

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

- 1.1** Burn operations for a simple prescribed burn are identified and undertaken, in accordance with approved prescribed burn plan, burn plan objectives, organisational procedures and legislative and regulatory requirements
- 1.2** Permits are obtained, in accordance with organisational procedures and legislative and regulatory requirements
- 1.3** Burn notifications and plans are issued to persons or organisations, in accordance with prescribed burn plan, organisational procedures and legislative requirements
- 1.4** Control lines, including secondary control lines, are specified and prepared, in accordance with organisational procedures
- 1.5** Prescribed burn plan operational hazards and risks to safety of people, property, assets, ecology and environment are identified and risk mitigation works are completed
- 1.6** Forecast weather conditions are monitored, recorded and assessed, in accordance with organisational procedures
- 1.7** Fuel conditions are monitored, in accordance with organisational procedures and prescribed burn plan
- 1.8** Resource requirements are confirmed with reference to burn plan
- 2.1** Prescribed burn notifications are issued, in accordance with organisational procedures
- 2.2** Pre-burn checks are conducted, in accordance with organisational procedures
- 2.3** Local weather conditions for day of burn are monitored and contingency arrangements actioned and communicated accordingly
- 2.4** Resources are gathered and personnel are briefed, in accordance with prescribed burn plan and contingency

arrangements

- 2.5** Burn ignition strategies, including lighting techniques patterns and sequences are implemented, in accordance with organisational procedures and prescribed burn plan
 - 2.6** Burning is monitored, patrol activities are conducted and operational changes made, as required
 - 2.7** Contingencies are implemented, in accordance with prescribed burn plan, as required
 - 2.8** Burn documentation is kept, in accordance with organisational procedures
 - 2.9** Burn operations are concluded and burn security is implemented, in accordance with organisational procedures
 - 2.10** Crews are debriefed and resources released from the burn
 - 2.11** Incidents are reported and investigated, in accordance with organisational procedures
- 3 Conduct post burn activities**
 - 3.1** Outcomes of the burn are assessed against burn objectives, in accordance with organisational procedures
 - 3.2** Variations from the burn plan are reported, in accordance with organisational procedures
 - 3.3** Restoration and rehabilitation works are identified and carried out, in accordance with organisational procedures
 - 3.4** Prescribed burn records are submitted, in accordance with the 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.

prescribed burn plan must include	• approval of plan for the conduct of prescribed burning • map identifying area to be burned • specifications and conditions under which operation is to be conducted
burn objectives must include one or more of the following	• asset protection • biodiversity protection • community protection • habitat management • hazard reduction • management of cultural sites and activities • protection of fire sensitive ecological communities • vegetation management
personnel or organisation must include one or more of the following	• personnel or organisations who • have an interest in adjacent land to which a burn could spread • have an interest in managing the consequences of a burn • have an interest in specific assets • have an interest in the area to be burned • may be concerned by evidence of a burn
resources must include one or more of the following	• contingency resources • crews for control, suppression and ground ignition • equipment and supplies • logistical support • other vehicles • tankers
burn ignition strategies and tactics must include	• contingency arrangements • fire behaviour to be achieved • ignition methods, lighting patterns, sequencing and timing of ignition
lighting techniques must include one or more of the following	• hand held • vehicle mounted propelled incendiaries • wind and waterproof matches
lighting techniques and patterns must include	• contour lighting • echelon • grid • line

- lighting sequence must include one or more of the following
- multi-line
 - spot
 - lighting sequences that considers
 - fuel arrangement
 - fuel moisture
 - slope
 - time of day
 - wind direction
- monitoring burn must include one or more of the following
- fire shape and spread
 - flame height
 - fuel moisture content
 - predictions
 - rate of spread
 - recording
 - safety considerations
 - smoke development
 - weather observation
 - wind speed and direction
- concluding operations and burn security must include one or more of the following
- mitigating hazards for public safety
 - mopping up and black out
 - patrolling burn area
 - reopening roads
 - transfer of responsibility, as per organisational procedures
- outcomes of the burn must include one or more of the following
- achievement of burn objectives
 - escapes
 - external impacts
 - levels of scorch
 - percentage of area burnt
 - reporting and storage of burn documentation

Unit Mapping Information

This unit replaces and is equivalent to PUAFIR412 Conduct simple prescribed burns.

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 PUAFIR402 Conduct simple prescribed burns

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) requirements including hazards, risk mitigation and safety of personnel
- checking burn and crew activities
- completing burn notifications
- concluding burn operations and implementing burn security
- conducting operational briefings and debriefings, safe burns utilising resources and post burn activities including operations and security
- confirming resources, location, construction and suitability of control lines for prescribed burns
- identifying and implementing restoration and rehabilitation activities
- implementing contingency arrangements
- interpreting and implementing simple prescribed burn plans
- interpreting simple prescribed burn plans and objectives, fire behaviour conditions and existing and forecast weather conditions
- monitoring equipment
- planning for contingencies
- preparing for a simple prescribed burn
- recording actions taken
- using fire prediction tools and resources

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

- briefing and debriefing content and processes
- burn notification including verbal and written notification
- characteristics of a simple prescribed burn including completed in one shift, involves minimal variation of fuels and terrain, low intensity, low potential impact on assets, low risk

and small area

- conclusion of simple prescribed burns including operations and security
- contingency arrangements including command structure, safety considerations such as escape routes and safety zones, actions to take in the event of unexpected fire behaviour changes, resolution of escapes, special resources and secondary control lines, resource requirements, resolution of resource breakdowns, injury on fire line and burn targets not met
- contingency plans
- fire prediction tools
- ground ignition patterns and techniques
- impact of conditions at simple prescribed burns on potential fire behaviour
- legislation, industry standards, codes of practice and regulations
- legislative and organisational authorisations required
- organisational documentation, policies and procedures
- outcomes of simple prescribed burn
- personnel and organisations involved in simple prescribed burn activities
- required permits
- resource requirements
- restoration and rehabilitation
- seasonal restrictions on simple prescribed burns
- simple prescribed burn and securing burn monitoring
- techniques, patterns and sequencing for lighting
- types of property and assets
- types of simple prescribed burns, prescribed burn plans and objectives
- weather conditions including: temperature, relative humidity, weather changes, atmospheric stability, drought index, fire danger index, weather forecasts, actual or anticipated changes in conditions and progress targets not met
- Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) organisational requirements including risk mitigation and safe work practices

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 in a range of actual and/or field based workplace

environments with evidence collected from undertaking a simple prescribed burn being required.

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
 - fire management and contingency plans
 - lighting and suppression crews
 - lighting and suppression equipment
 - simple prescribed burn plans
- applicable documentation including organisational procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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