



Australian Government

PUAFIR518 Conduct and record a Bushfire Attack Level (BAL) assessment

Release: 1

PUAFIR518 Conduct and record a Bushfire Attack Level (BAL) assessment

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 covers the skills and knowledge to perform Bushfire Attack Level (BAL) assessments.

Individuals undertaking Bushfire Attack Level assessments require a theoretical knowledge of fire, an understanding of regulatory frameworks, an ability to assess a location and consult with clients on the benefits of achieving fire resistance. It includes analysing the cause and effect of bushfire attack and correlating information about site conditions and determining the Bushfire Attack Level for a site.

The unit is applicable to personnel who are responsible for conducting a Bushfire Attack Level assessment as described in industry standards related to the construction of buildings in bushfire prone areas.

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.

Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions.

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 Analyse cause and effect of bushfire attack on buildings

- 1.1** Objectives of planning and building legislation and standards covering development in areas exposed to bushfire are reviewed to identify measures to improve performance of buildings when subject to bush fire attack
- 1.2** Requirements for Bushfire Attack Level (BAL) assessment are identified and complied with including Work, Health and Safety (WHS)/Occupational Health and Safety (OHS), legislative, organisational and certification requirements
- 1.3** Interaction between fuel, topography and weather is assessed for the site and potential bushfire behaviour and its impact on people and property is determined
- 1.4** Potential fire impact on buildings including construction durability and immediate environment is determined
- 1.5** Sources of combustion are identified to determine how they influence the BAL

2 Correlate information about site conditions

- 2.1** The location of the site being assessed is identified
- 2.2** Fire Danger Index (FDI) and/or wind speed is determined for the site
- 2.3** Vegetation classification, type and height is determined for the site
- 2.4** Distance from vegetation to building sites is measured, in accordance with organisational procedures
- 2.5** Slope of land under vegetation is measured, in accordance with organisational procedures

3 Determine BAL for site

- 3.1** Relevant FDI, vegetation classification and type, distance to vegetation and slope are used to determine BALs applicable to the site

- 3.2** BALs appropriate to the site are verified, in accordance with organisational procedures
- 3.3** Details of BAL assessment is documented and 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.

legislation and standards must include all the following

- AS 3959 Construction of Buildings in Bushfire Prone Areas (or successor)
- NASH Standard - Steel Frame Construction in Bushfire Areas (National Association of Steel Framed Housing)
- National Construction Code (Building Code of Australia)
- planning requirements and relevant state and territory legislation

buildings must include the following

- alterations and additions to existing buildings
- new buildings

Fire Danger Index (FDI) must include one or more of the following

- forest fire and grassland fire danger indexes
- organisational and jurisdiction specific requirements for their use

vegetation type must include one or more of the following

- as defined in AS3959 Construction of Buildings in Bushfire Prone Areas (or successor)
- as specified in organisational and jurisdictional guides

Unit Mapping Information

New unit, no equivalent unit.

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 PUAFIR518 Conduct and record a Bushfire Attack Level (BAL) assessment

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) regulations and guidelines including safe work practices and procedures
- complying with legislation, regulations, industry standards and codes of practice for undertaking a Bushfire Attack Level (BAL) assessment
- collecting information and determining BAL assessment
- explaining purpose and processes associated with undertaking a BAL assessment to site owners including identifying problems and demonstrating potential responses
- identifying bushfire behaviour and conditions
- maintaining organisational documentation including recording, reporting and maintaining organisational information accurately
- using organisational policies and procedures relevant to undertaking a BAL assessment

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

- bushfire behaviour concepts relevant to bushfire attack level assessments including
 - bushfire attack mechanisms including embers, radiant heat and flame contact
 - ember production and transport
 - heat transfer - convection, radiation and conduction
- bushfire behaviour concepts relevant to how bushfires move across different landscapes and vegetation including
 - fire development, growth and scale
 - flame height, fire intensity and rate of spread
 - junction zones and spotting
- Commonwealth, state or territory statutory requirements including licensing, and certification requirements

- communication methods and techniques
- fire weather conditions and impacts on fire behaviour including atmospheric stability, humidity, temperature, wind speed and direction and fire danger indices
- fuel and its impact on fire behaviour including amount, arrangement and moisture status
- organisational policies and procedures for undertaking a BAL assessment including procedures for recording, reporting and maintaining organisational records and information
- process for slope assessment and determination of effective slope
- site constraints and limitations
- sources of combustion including
 - flammable elements and vulnerable features in and around site
 - structures and other sources adjacent to or at proposed site
- vegetation type and classification including forest, woodland, shrubland, scrub, Mallee and/or Mulga, rainforest, grassland, tussock moorland and exclusions
- Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including guidelines and practices for undertaking BAL assessments

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.

Students must determine the level of bush fire attack by undertaking a minimum of four calculated Bushfire Attack Level (BAL) assessments in a variety of vegetation types and locations.

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
 - AS3959 Construction of buildings in bushfire prone areas (or successor)
 - range of appropriate sites
 - specifications and work instructions
- applicable documentation including organisational procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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