



Australian Government

PUAFIR007 Operate aerial drip torch

Release: 1

PUAFIR007 Operate aerial drip torch

Modification History

Release 1.0 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, operate and maintain an aerial drip torch, also called an aerial helitorch, as part of an aerial ignition operation. It includes preparing for aerial ignition operation, preparing drip torch, conducting aerial ignition operation and maintaining aerial drip torch within scope of authority.

The unit is applicable to an aerial drip torch operator responsible for dropping ignited gelled petroleum from a helicopter as part of aerial ignition operations, which introduces fire into the landscape in order to ignite either a prescribed burn or burning as part of a fire suppression strategy. Because of the risks involved aerial ignition must be conducted in accordance with an approved burn plan or incident action plan with the ignition sequence and intervals planned and monitored.

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 unit 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.

PUAFIR013 Supervise incendiary operations during aerial ignition

Competency Field

Fire

Unit Sector

Fire

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Prepare for aerial ignition	1.1 Personal protective clothing and equipment and other safety equipment is tested and worn in accordance with organisational procedures 1.2 Requirements for aerial ignition are identified and confirmed with relevant personnel 1.3 Activities are undertaken in accordance with industry standards, legislation, organisational procedures and Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements 1.4 Aerial drip torch and gelled petroleum are stored and transported in accordance with organisational procedures and regulatory requirements
2 Prepare aerial drip torch	2.1 Aerial drip torch power loom is installed on aircraft in accordance with the organisational procedures and aircraft operator requirements 2.2 Aerial drip torch is inspected by pilot to ensure correct sling configuration for operation 2.3 Mixing operations for gelled petroleum are monitored to ensure they are undertaken in accordance with organisational procedures 2.4 Gelled petroleum is loaded into aerial drip torch in accordance with organisational procedures 2.5 Aerial drip torch is tested and adjusted, where required, to ensure correct operation
3 Conduct aerial ignition operations	3.1 Principles of Team Resources Management (TRM) are established and maintained for aerial ignition operations 3.2 Briefing is received from pilot on aircraft safety including aircraft emergency procedures 3.3 Response procedures for emergency situations involving the aerial drip torch are confirmed with the pilot

- 3.4 Aerial drip torch is attached via sling to the aircraft in accordance with organisational procedures and aircraft operator requirements
 - 3.5 Communication with the pilot is maintained to ensure aerial ignition achieves its objectives
 - 3.6 Aerial drip torch is operated in accordance with organisational procedures and manufacturers' specifications
 - 3.7 Adjustments to the aerial drip torch are made, as required, in response to changed conditions or alterations to burn plan
 - 3.8 Response to emergencies involving aircraft or aerial drip torch is undertaken in accordance with aircraft and organisational procedure
- 4 Maintain aerial drip torch within scope of authority**
- 4.1 Aerial drip torch is shut down in accordance with organisational procedures and manufacturers' guidelines prior to departure of aircraft from ignition site
 - 4.2 Excess gelled petroleum is stored or disposed of in accordance with organisational procedures and regulatory requirements
 - 4.3 Aerial drip torch is maintained within scope of authority
 - 4.4 Aerial drip torch faults are documented and forwarded to appropriate personnel for repair, if required
 - 4.5 Aerial drip torch is stored 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 PUA Public Safety Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This is a newly created unit, there is no equivalent unit.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=3eca5672-6d5a-410b-8942-810d0ba05bbf>

Assessment Requirements for PUAFIR007 Operate aerial drip torch

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 and performance criteria on at least one occasion and includes

- adhering to safe working practices if aerial drip torch malfunctions
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) organisational requirements including aircraft or other emergency procedures and requirements for personal protective clothing and equipment
- checking and wearing of personal protective clothing and equipment
- conducting aerial drip torch operations
- demonstrating pre-flight testing and installation, where required, of an aerial drip torch
- ensuring gelled petroleum is mixed and loaded into aerial drip torch in accordance with organisational procedures
- implementing regulatory requirements for storage and handling of dangerous goods
- maintaining and storing the aerial drip torch within scope of authority and in accordance with regulatory requirements
- operating aerial drip torch from an airborne aircraft
- operating for extended periods in an aircraft
- preparing aerial drip torch
- reporting aerial drip torch malfunctions, accidents and incidents
- using communications equipment
- working as a member of a team.

Knowledge Evidence

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

- aircraft operator's policy and procedures for aerial drip torch operations
- aircraft safety and emergency procedures
- characteristics and limitations of aerial drip torch and gelled petroleum
- emergency procedures for aerial drip torch malfunction
- guidelines relating to safe use of aerial drip torch
- methods for disposal of excess gelled petroleum

- organisational policies and procedures including for working in aerial ignition operations and for use of an aerial drip torch
- personal protection clothing and equipment for operating an aerial drip torch
- regulatory and organisational requirements for storage and transport of dangerous goods
- risk mitigation and hazard identification
- roles and responsibilities of team involved in aerial drip torch operations
- Team Resources Management (TRM) principles
- Work Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in operational situations or in simulated operational training situations that reflect workplace conditions.

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.

Resources for assessment must include access to

- a range of exercises, case studies and/or simulations
- appropriate materials, equipment and tools currently used in industry including
 - aerial drip torch and gelled petroleum
 - an area to conduct operations
 - appropriate tools for maintaining an aerial drip torch where within scope of authority
 - helicopter authorised to fly with an aerial drip torch
 - personal protective clothing and equipment for operating an aerial drip torch
 - safe disposal facilities for unused gelled petroleum
 - safe transport of aerial drip torch equipment and consumables in accordance with relevant dangerous goods codes
- applicable documentation including organisational procedures, standards, equipment specifications, regulations, codes of practice and operational manuals.

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