



Australian Government

**Assessment Requirements for PUA FIR202
Use Class A foam in wildfire operations and
non-structural applications**

Release: 1

Assessment Requirements for PUAFIR202 Use Class A foam in wildfire operations and non-structural applications

Modification History

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

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 Class A foam including direct and indirect application
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements
- constructing control lines, mopping up and completing blacking out operations
- constructing a control line including using a natural or constructed barrier or treated fire edge to limit spread of fire
- containing and disposing of, where practicable, fire water runoff containing Class A foam or wetting agent prior to its use
- directing attacks must include constructing a control line immediately adjacent to fire edge
- extinguishing fire's edge using water, foam and earth or by beating out flames
- handling concentrate using nitrile or neoprene handling gloves, P2 nuisance level organic vapour respirator (non-cartridge type) and in addition when handling solution using barrier cream for hands and leather gloves
- implementing asset protection
- implementing safe work practices when using Class A foam including avoiding the use of foam 50 metres from waterways
- implementing safe work practices when preparing, selecting, operating, cleaning up, storing and handling Class A foam
- implementing environmental precautions when working with Class A foams
- instigating environmental precautions when working with Class A foam
 - minimising the use of foam and wetting agents
- mopping up and blacking out operations including making a fire safe after it has been controlled by extinguishing or removing burning material along or near the control line including felling stags and trenching logs to prevent rolling and the like, coal conveyor belts, power station cable ducts, ship holds, underground mining and vehicles
 - notifying and seeking advice from environmental protection authorities
 - if there is substantial or significantly polluted fire water runoff or where Class A foam or wetting agent enters a waterway
 - where Class A foam or wetting agent enters a domestic water storage, flushing the water

storage before reuse

- where possible, using alternatives to foam and wetting agents to suppress fires where there is a risk of contaminating waterways
- operating Class A foam system and equipment
- preparing Class A foam for use and applying on a range of fuels using nominated proportioning or induction rates to maximise operational benefits
- refilling Class A foam containers
- selecting foam proportioning rate and foam expansion or aspiration ratio for fuel to be treated
- selecting and operating branch nozzle to apply foam
- storing and handling Class A foam including implementing procedures for operating and flushing Class A foam system and minimising risk of equipment and/or environmental contamination
- using personal protective clothing and equipment required for working with Class A foam in all situations as per manufacturers' specifications including rubber or leather boots, safety goggles, wildfire or structural helmet, wildfire overalls or structural firefighter clothing for specialist use applications

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

- application of Class A foam
- aspirated and non-aspirated foam
- characteristics and limitations of equipment including cleaning and maintenance
- Class A foam system types and their operating components
- classes of fires
- Class A foams including concentrate storage and handling, expansion or aspiration of, expansion ratio, proportioning or induction rates, storage, mixing and filling sites and types and their use for wildfire application
- Class A foam including combinations of synthetic detergent surfactants that reduce the surface tension of water and foaming agents and corrosion inhibitors that reduce corrosion of metals and preservative to prolong shelf life
- Class A fuels such as flammable solids including forest flammable and grassland fuels, wood, paper, plastics and rubber
- Class A foam systems including low and high energy
- direct and indirect application of low expansion foam
- effects of Class A foam on fire triangle
- environmental impacts of Class A foams and precautions
- foam proportioning or induction rates including production of foam with properties within effective range and use of foam chemicals at safe concentrations
- foam expansion or aspiration ratio including low and high expansion foam, medium expansion foam and non-aspirated foam

- intended application of non-aspirated foam including cools, isolates and penetrates
- intended application of aspirated foam including insulates and smothers
- maximum operational benefits including application visible from ground and air, easily proportioned, effective use of Class A fuel, extension of useful life of water, increase in effectiveness of water, reduction in suppression and mop up time, short term fire barriers and simple application
- measures for the control of leaks or spills and exercising care to avoid spills at mixing and loading areas
- non-structural applications
- organisational documentation, policies and procedures
- personal protective clothing and equipment
- properties and benefits of Class A foam
- safe work practices including
 - avoiding contamination from exposure
 - being alert to concentrate and solution as it contributes to creating slippery conditions on vehicle decks and on the ground
 - being alert to the presence of trip hazards
 - holes and hot ash beds that can be concealed beneath the foam blanket and
 - potential environmental impact of using Class A foam
- storage arrangements in workplaces including storage of foam to minimise risk of foam entering drains and location of foam mixing and loading areas away from waterways
- types for non-structural applications and reason for restricting use of Class A foam on structures
- use of Class A foam on Class B hydrocarbon fuels including flammable liquids such as petrol, diesel and fuel oils and their impact
- Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) organisational requirements including safe work practices, risk mitigation and use of Safety Data Sheets (SDSs)

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.

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
 - conducting foam training at a location away from waterways, storm water drains or agricultural areas
 - pumper or tanker fitted with a Class A foam system and associated equipment
 - training site where activity can be undertaken with minimum impact to the environment
- applicable documentation including organisational procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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>