



Learner Assessment Guide
Unit Standard 16951
Apply ventilation techniques to assist fire and rescue operations
(Level 5, Credit 6, Version 2)

Level Descriptor

Level	Process	Employing	Responsibility
5	Carrying out processes that: <ul style="list-style-type: none">Require a wide range of specialised technical or scholastic skillsInvolve a wide choice of standard and non-standard proceduresAre employed in a variety of routine and non-routine contexts	Employing: <ul style="list-style-type: none">A broad knowledge base with substantial depth in some areasAnalytical interpretation of a wide range of dataThe determination of appropriate methods and procedures in response to a range of concrete problems with some theoretical elements	Applied: <ul style="list-style-type: none">In self-directed and sometimes directed activitywith broad general guidelines or functionsWith full responsibility for the nature, quantity and quality of outcomesWith possible responsibility for the achievement of group outcome

Descriptors: Credit 6 - will require approximately 60 - 72 hours of learning, practice or experience and assessment for a person with no previous knowledge or experience.

Version 2 - This document has been prepared based on version 2 of the Unit Standard.

Elements:

- Demonstrate knowledge of effective use of ventilation and the relationships between the construction types.
- Apply and supervise ventilation techniques used in fires and other emergencies of a confined nature.

Prerequisites: *Unit 20394, Apply basic ventilation techniques to assist fire and rescue operations, or demonstrate equivalent knowledge or skills.*

Assessment Conditions: Assessment against this unit standard may take place under real or practical simulated conditions.

Resources: Organisational procedures refer to NZ Fire Service Manual of Operations Vol. 2, National Commander's Instruction No. 8, or similar fire service provider publications that allow for the safe and effective use of ventilation techniques to assist fire and rescue operations.

Special Notes: Compliance with the providers Health and Safety policy and procedures in mandatory.

Assessment Brief Instructions:

Assessing Element 1: Demonstrate knowledge of effective use of ventilation and the relationships between the construction types.

Candidate ensures the benefits associated with ventilation are explained in accordance with the SOPs.

Candidate ensures the hazards associated when applying ventilation are explained in accordance with the SOPs.

Candidate ensures tactical options with forced ventilation are explained in accordance with the organisational procedures.

Candidate ensures methods of ventilation applied for reducing smoke, fumes, and heat from compartments and/or structures are explained in accordance with the organisational procedures.

This includes:

- single storey dwellings
- multi-storey buildings
- large open span complexes
- basements
- tunnels
- pits

Candidate ensures manual ventilation techniques that may be applied to various construction types are explained in accordance with the organisational procedures. This includes:

- single story dwellings
- multi-story buildings and/or structures
- large open span complexes
- basements
- tunnels
- pits

In-built systems and components that provide protection to compartments and exit paths are explained in accordance with the SOPs. This includes:

- smoke stop systems
- pressurisation systems
- ventilation systems
- fire damper systems

Assessing Element 2: Apply and supervise ventilation techniques used in fires and other emergencies of a confined nature.

Candidate ensures ventilation methods are selected to assist fire and rescue operations in accordance with the organisational procedures.

Candidate ensures structures are ventilated in accordance with the organisational procedures. This includes a minimum of three from the following:

- single story dwellings
- multi-story buildings
- large open span complexes
- basements
- tunnels
- pits

Candidate ensures the performance and safety of ventilation crews are supervised in accordance with the organisational procedures.

Candidate ensures the ongoing conditions involving the development of smoke, fumes, and heat and their effect on ventilation operations are supervised in accordance with the SOPs.