

Title	Apply basic ventilation techniques to assist fire and rescue operations		
Level	3	Credits	4

Purpose	<p>This unit standard is for emergency personnel who are required to work in irrespirable or contaminated atmosphere at emergency incidents and who will be required to carry out actions to ventilate confined spaces.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of hazards, the principles of ventilation, and ventilation equipment used at emergency incidents; carry out ventilation operations to assist fire and rescue operations; and recommission ventilation equipment after fire and rescue operations use.</p>
----------------	---

Classification	Fire and Rescue Services > Fire and Rescue Services - Structural and Industrial
-----------------------	---

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Compliance with the fire and rescue service provider's Health and Safety policy and procedures is mandatory.
- 2 Assessment against this unit standard may take place under real or practical simulated conditions.
- 3 Definitions
Fire and rescue service provider's requirements refer to policies and procedures on safety and operation set down by each fire and rescue service employer or host organisation.
Ventilation equipment refers to all equipment used by the fire service provider to specifically remove contaminants and products of combustion from a structure to atmosphere.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazards, the principles of ventilation, and ventilation equipment used at emergency incidents.

Performance criteria

- 1.1 Products found in the atmosphere of confined spaces that present hazards to fire fighters at fire and non-fire incidents are identified in accordance with the fire and rescue service provider's requirements.
- Range fire – three products;
non-fire – two products.
- 1.2 The benefits of tactical ventilation in assisting fire and rescue operations in confined spaces are described in accordance with the fire and rescue service provider's requirements.
- Range four of – access, rescue, safety, internal conditions, fire attack, property preservation.
- 1.3 Two risks associated with ventilation are described in accordance with the fire and rescue service provider's requirements.
- 1.4 Methods of ventilation are described in accordance with the fire and rescue service provider's requirements.
- Range natural, automatic, tactical.
- 1.5 Safety and operational factors to be considered prior to implementing ventilation are described in accordance with the fire and rescue service provider's requirements.
- Range may include but is not limited to – fire location, vent location, vent size, air pressure.
- 1.6 Ventilation techniques are explained with reference to outlet vent location in accordance with the fire and rescue service provider's requirements.
- Range vertical (top), horizontal (cross), positive pressure, negative pressure.
- 1.7 The relationship between the inlet vent and outlet vent for forced ventilation is explained in terms of size in accordance with the fire and rescue service provider's requirements.
- 1.8 Equipment used for natural and forced ventilation is identified in accordance with the fire and rescue service provider's requirements.
- 1.9 The technique for siting positive pressure fans at inlet openings is described in accordance with the fire and rescue service provider's requirements.
- Range single fans, fans in parallel.

Outcome 2

Carry out ventilation operations to assist fire and rescue operations.

Range horizontal, vertical, natural, forced (negative and positive pressure).

Performance criteria

2.1 Personal protective equipment and ventilation equipment are selected and used in accordance with the fire and rescue service provider's requirements.

2.2 Equipment is placed and readied for use in accordance with the fire and rescue service provider's requirements.

2.3 Building or space is readied for ventilation in accordance with the fire and rescue service provider's requirements.

Range inlet, outlets, selected internal openings, communicated to personnel.

2.4 Equipment is operated in accordance with the fire and rescue service provider's requirements and manufacturer's instructions.

2.5 Conditions within the structure are re-evaluated, and then monitored and reported in accordance with the fire and rescue service provider's requirements.

Outcome 3

Recommission ventilation equipment after fire and rescue operations use.

Performance criteria

3.1 All ventilation equipment is recovered and removed from the site in accordance with the fire and rescue service provider's requirements.

3.2 Ventilation equipment is restored to operational readiness in accordance with the fire and rescue service provider's requirements.

Range drained, cleaned, refuelled.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 March 2004	31 December 2025
Review	2	20 November 2009	31 December 2025
Review	3	30 September 2021	31 December 2025

Consent and Moderation Requirements (CMR) reference	0039
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

This unit standard is expiring.