

Title	Substantiate, determine, and report on the cause of structural fires		
Level	6	Credits	15

Purpose	<p>This unit standard is intended for specialist fire investigation officers who have responsibility for further investigating and substantiating the initial investigations into the origin and cause of structural fires, making the final determination of fire cause, and completing comprehensive fire investigation reports.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> - demonstrate knowledge of the statutory powers and organisational policy empowering fire and emergency agency personnel to investigate fire cause; - identify, gather, control, and retain evidence from the scene of a structural fire; - determine the area of fire origin, establish fire cause, and develop a profile of related events for a structural fire; and - report on the cause of a structural fire.
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Classification	Fire and Rescue Services > Fire and Rescue Services - Structural and Industrial
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Available grade	Achieved
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Guidance Information

- 1 Compliance with the fire and emergency agency's Health and Safety policy and procedures is mandatory.
- 2 Assessment against this unit standard must take place under real or simulated conditions.
- 3 Definitions
Fire and emergency agency's requirements refer to policies, procedures and supporting documentation on safety and operations set down by each fire and emergency agency employer or host organisation.
Structural fire refers to a fire that involves a building, vessel, vehicle, or machine.
- 4 This unit standard is one of a series of unit standards for fire investigation of structural and industrial fires, each of which reflect the level of responsibility and complexity of the fire investigation. The other unit standard in the series is Unit 24612, *Conduct an initial investigation into the cause of a structural fire*.
- 5 Assessment against all outcomes must be in accordance with the fire and emergency agency's requirements.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the statutory powers and organisational policy empowering fire and emergency agency personnel to investigate fire cause.

Performance criteria

- 1.1 Legislation that empowers fire and emergency agency personnel to investigate fire cause is described.
- 1.2 The specialist fire investigation officer's organisational delegations and responsibilities to investigate fire cause are described.
- 1.3 Situations requiring investigation by other agencies are identified.
- Range agencies include but are not limited to – New Zealand Police, Employment New Zealand, WorkSafe.

Outcome 2

Identify, gather, control, and retain evidence from the scene of a structural fire.

Performance criteria

- 2.1 Sources of evidence from a structural fire are identified and gathered.
- Range may include but is not limited to – photographic evidence, witness reports, fire and rescue service response crew reports, profiles of related events.
- 2.2 Evidence from the scene of a structural fire is controlled and retained to minimise disruption to the fire scene.
- 2.3 Scene surveys are managed to ensure the completeness of the body of evidence gathered.
- Range exterior examination, interior examination, wider scene examination.
- 2.4 Evidence is gathered to determine its quality in relation to fire cause and any requirement for forensic examination.
- Range primary evidence, secondary evidence, non-related evidence.

Outcome 3

Determine the area of fire origin, establish fire cause, and develop a profile of related events for a structural fire.

Performance criteria

- 3.1 The area of fire origin and the point of ignition are identified.
- 3.2 The fire cause is determined through the examination of gathered evidence.
- 3.3 Crucial evidence is captured and controlled for the purposes of forensic testing.
- Range may include but is not limited to – evidence that relates to circumstances surrounding ignition, evidence supporting the theory of ignition, evidence of a suspicious nature.
- 3.4 The results of forensic testing are incorporated into a profile of evidence through consultation with other subject experts.

Outcome 4

Report on the cause of a structural fire.

Performance criteria

- 4.1 Information gathered during the investigation is managed and stored.
- 4.2 Reports that analyse, identify, and explain the cause of a structural fire are developed.
- Range may include but is not limited to – the fire and rescue service provider, coroner, Territorial Authority, legal agencies, insurance agencies, building agencies.

Planned review date	31 December 2023
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	22 December 1999	N/A
Review	2	25 March 2004	N/A
Review	3	20 November 2009	N/A
Revision and Rollover	4	30 September 2021	N/A

Consent and Moderation Requirements (CMR) reference	0039
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.