



Australian Government

POLINV016 Analyse complex factors involved in crash incidents

Release: 1

POLINV016 Analyse complex factors involved in crash incidents

Modification History

Release 1. This is the first release of this unit of competency in the POL Police Training Package.

Application

This unit describes the skills and knowledge required to apply the underpinning and specific crash analysis methodologies which support police investigations into crash incidents. It provides the basis on which further specialist vehicle knowledge can be developed. It includes applying analysis methodologies to evidence collected by police crash investigators as part of crash analysis.

This unit applies to those working as police officers involved in vehicle crash analysis.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are undertaken. Organisational policies and procedures must be consulted and adhered to, particularly those related to work health and safety (WHS).

Those undertaking this unit would work autonomously while remaining responsible for reporting to senior staff. They would demonstrate the ability to perform highly complex analysis in changing and often unfamiliar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

Investigation.

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Analyse systems and operations of crash incident vehicle

- 1.1** Inspect vehicle features to identify class and type
- 1.2** Classify operating features of vehicle to identify its configuration
- 1.3** Analyse vehicle's braking system and road evidence to determine braking efficiency
- 1.4** Analyse vehicle operational features and mechanical systems to verify functionality and condition
- 1.5** Analyse damage to correlate interaction of objects and vehicles during crash incident
- 1.6** Calculate vehicle mass distribution and vehicle dimensions to determine effect on vehicle operation

2 Analyse electronic vehicle evidence

- 2.1** Inspect electronic data recorder systems to assess evidentiary value
- 2.2** Review electronic data to facilitate analysis
- 2.3** Validate electronic data to assess viability for analysis
- 2.4** Calculate crash dynamics and speed using electronic evidence

3 Examine human and environmental factors

- 3.1** Assess medical records to establish if records corroborate crash analysis
- 3.2** Review interviews and statements to corroborate crash analysis
- 3.3** Evaluate interviews and statements to determine factors contributing to crash incident
- 3.4** Review driver information to assess experience and driving ability as factors of influence in crash incident
- 3.5** Determine effect of environmental factors on crash incident
- 3.6** Determine how human actions contributed to crash incident

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 POL Police Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This is a new unit. No equivalent unit.

Links

Companion Volume Implementation Guides can be found on VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=98c3984e-2cf1-48a8-8ed1-85e4b92e7351>

Assessment Requirements for POLINV016 Analyse complex factors involved in crash incidents

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- analysing operational features of vehicle
- applying human evidence to a crash analysis
- calculating speed and dynamics of vehicles
- calculating vehicle mass distribution and vehicle dimensions
- examining how human and environmental factors impact on a crash incident
- inspecting vehicle and analysing its mechanical and electronic systems
- interpreting statements and interviews to corroborate analysis
- reviewing medical records as evidence.

Knowledge Evidence

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

- crash analysis methodologies
- environmental factors that may contribute to crash incidents including:
 - geographic location
 - hazards and obstructions
 - lighting
 - road design and maintenance
 - roadside furniture
 - weather conditions
- factors impacting human ability to operate a vehicle including:
 - distraction
 - experience
 - fatigue
 - impairment
 - medical conditions
- faults and defects impacting vehicle operations

- features, standards and capabilities of vehicles including:
 - braking systems and efficiency
 - control
 - legal vehicle configurations and modifications
 - motion
 - roll thresholds
 - safety equipment
 - steering
 - suspension
 - transmission
- interview evaluation techniques
- medical information and records
- organisational policies and procedures related to work health and safety (WHS)
- road evidence
- road laws
- sources of electronic evidence
- standard operations and maintenance of mechanical parts and systems
- types of electronic data recorder systems
- vehicle maintenance record keeping systems.

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 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, such as in situations that can affect safety or occur only rarely, assessment can occur in simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals.

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