



Australian Government

Department of Education, Employment and Workplace Relations

PUAFIR508B Assess and evaluate a facility's fire/incident safety management systems in hazardous materials

Release: 2

PUAFIR508B Assess and evaluate a facility's fire_incident safety management systems in hazardous materials

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competence required to assess and evaluate a facility's fire/incident safety management systems for dangerous goods and/or hazardous substances.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package. This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s

PUAFIR404B Inspect dangerous goods facilities

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess hazards of on-site materials	<ul style="list-style-type: none">1.1 On-site hazards are identified1.2 Facility risk factors are determined1.3 Potential incidents are identified1.4 Factors which may contribute to loss of containment, control of, or fire involving <i>hazardous materials</i> are assessed
2. Identify, determine and assess the likely consequence of the release on on-site materials (non-fire scenario)	<ul style="list-style-type: none">2.1 The range of dangerous goods releases is identified and assessed in accordance with the organisation's procedures2.2 The <i>consequence</i> of each of the dangerous goods releases is identified and assessed in accordance with the organisation's procedures2.3 The impact on the immediate area, personnel, property and the environment is identified in accordance with the organisation's procedures2.4 The likelihood of the events occurring is determined in accordance with the organisation's procedures2.5 Resources available to combat the release of on-site materials are identified and assessed
3. Determine and assess the fire scenario (fire, chemical, gas release) involving hazardous materials	<ul style="list-style-type: none">3.1 The range of fire <i>scenarios</i> involving hazardous materials is identified in accordance with the organisation's procedures3.2 The range of consequences of each scenario involving hazardous materials is identified and assessed in accordance with the organisation's procedures3.3 Impact on the immediate area, personnel, property and the environment in the event of a hazardous materials fire is identified in accordance with the organisation's procedures3.4 The likelihood of a fire occurring is determined in accordance with the organisation's procedures3.5 Resources available for each fire are identified and assessed in accordance with the organisation's procedures
4. Assess fire/incident and safety management systems and their performance	<ul style="list-style-type: none">4.1 <i>Fire/incident and safety management systems</i> including prevention, preparedness, response and <i>recovery</i> are identified4.2 Performance of fire/incident and safety management systems is assessed in accordance with relevant legislation, standards, codes of practice and performance based criteria

ELEMENT

PERFORMANCE CRITERIA

5. Report and recommend action

- 4.3 Survivability of the systems is evaluated in accordance with the organisation's procedures
Fire/incident and safety management system design assumptions and fire organisation's operations are assessed
- 4.4 Recovery strategies are identified and assessed
- 5.1 Proposed or existing fire/incident and safety management systems are documented
- 5.2 Evaluation of the fire/incident and safety management systems are recorded
- 5.3 Recommendations for action to be taken and proposed upgrades to fire/incident and safety management systems are reported, documented and forwarded in accordance with the organisation's procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

inspect premises using risk based approach
interpret risk related documentation
prepare reports

Required Knowledge

consequence analysis
Hazard and Operability Studies (HAZOP)
risk analysis
fire safety studies
emergency shutdown systems
emergency response plans

Evidence Guide

EVIDENCE GUIDE

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential for this unit that competence be demonstrated in:
identification of hazardous materials
assessment of hazardous materials
identification, determination and assessment of the consequences of a release (fire and non-fire)
assessment of performance of a fire/incident safety and management systems
report writing

Consistency in performance

Evidence should be gathered over a period of time in a range of actual or simulated workplace environments

Context of and specific resources for assessment

Context of assessment

Evidence of competence may be demonstrated on the job or in a simulated workplace environment

Specific resources for assessment

Facility plans, documentation, fire safety study and access to a suitable facility for inspection

Guidance information for assessment

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

Range Statement

RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Hazardous materials may include

any materials which, without adequate safeguards, may contaminate the environment, and/or threaten life or property
dangerous goods, hazardous substances, or scheduled poisons, environmental pollutants and listed (prescribed) wastes

Information enabling the identification of hazardous materials must include

United Nations Numbers
proper shipping names
product names or trade names
chemical names and Chemical Abstract Service Numbers
dangerous goods class labels
packing groups
emergency information panels
placarding
storage manifests
transport documents

Fire/incident safety systems must include

fire main system
static water and pump sets
fire sprinkler system
cooling water system
fire/flame detection and alarm system
gas/vapour detection and alarm system
communication system
evacuation system
fire suppression system
smoke/ventilation control system
passive fire protection
explosion relief devices
bundling

Safety systems may include

facility fire/incident response teams material handling systems
facility work practices
facility emergency procedures
facility mutual aid agreements
Australian and New Zealand Standards and Codes

Operation of these systems

Australian and New Zealand Standards and Codes

RANGE STATEMENT

may include compliance with

NFPA Standard
British/European Union Standard
industry association specification
manufacturer's specification
system designer specification
company/owner requirements
NSW Planning Guidelines Advisory Paper No. 2 (Fire Safety Study)
Factory Mutual System - Loss Prevention Data

RANGE STATEMENT

Information about hazardous materials must be accessed from

Emergency Response Guide Books
HAZCHEM Code
NFPA Code
European Marking ADR Hazardous Identification Numbers
emergency procedures guides
electronic databases
HAZMAT Action Guides
material safety data sheets

and may also include

safe storage and handling information cards
technical advice
Worksafe List of Hazardous Substances

Consequences of a release may include

vapour cloud formation and tracking
ground water/watercourse contamination
fauna/flora impact
soil contamination
effects on people
effects on property
atmospheric contamination

Consequences of a fire must include

heat flux contours
explosive over pressure
toxic smoke/water/air concentration
direct flame impingement
direct impact from debris
potential for propagation/knock-on effect
secondary incidents
effects on people
effects on property

Scenarios must include

leak into bunded/unbundled areas
structural failure of storage vessels on part of manufacturing plant
percussive unconfined vapour cloud explosion
vapour cloud explosion
boiling liquid expanding vapour explosion
bund fires
jet fires
pool fires
flash fires
toxic vapour clouds
vehicle fires

Recovery strategies may

commercial mutual aid agreements
fire organisation's resources working with government

RANGE STATEMENT

include

and non-government organisations
contaminated fire water containment
fire agency clean-up
facility restoration
hazardous waste disposal

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s

PUAFIR506B Conduct an assessment of a building's performance based design