



Australian Government

Department of Education, Employment and Workplace Relations

PSPSOHS605A Apply occupational hygiene principles to control OHS risk

Release 3

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Modification History

Release	TP Version	Comments
3	PSP12V1	Unit descriptor edited.
2	PSP04V4.2	Layout adjusted. No changes to content.
1	PSP04V4.1	Primary release.

Unit Descriptor

This unit covers application of occupational hygiene knowledge and the techniques to control OHS risk arising from health hazards at work.

In practice, applying occupational hygiene principles to control OHS risk may overlap with other generalist or specialist public sector work activities such as promoting ethical practice, applying government systems, influencing opinion, fostering leadership, managing resources, managing compliance with legislation.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Application of the Unit

This unit provides for the requirement to control OHS risk arising from health hazards at work through the identification and assessment of the real or potential occurrence of chemical, physical or biological agents and other workplace stressors (including their interactions) that may affect the health or wellbeing of workers or others, and the recommendations for controls of such hazards.

Underpinning knowledge and skills for this unit are addressed in PSPSOHS504A Apply principles of OHS risk management, and PSPSOHS505A Manage hazards in the work environment, and include a knowledge of systematic approaches to managing OHS. Other useful skills that support this unit are addressed in PSPSOHS406A Use equipment to conduct workplace monitoring.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

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 range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Identify health hazards that may result from features of the workplace or working environment	1.1 Workplace factors that may affect the health of workers are identified. 1.2 Health hazards that may result from work processes, work operations, equipment and work procedures are identified. 1.3 Possible routes of entry to the body and consequent effects on the body are identified for different workplace factors. 1.4 Situations are identified where OHS specialists and other advisers may be required.
2 Analyse the risks of worker exposure to potentially harmful agents and factors	2.1 Sources of exposure and related factors to potentially harmful agents and factors in work processes and methods are determined. 2.2 Equipment, sampling plan and techniques for assessing the exposure to selected agents and factors within a workplace are identified. 2.3 Monitoring and sampling results to provide an assessment of exposure are interpreted and evaluated. 2.4 Exposure standards are utilised in the assessment of risks. 2.5 Workplace measurements, interpretations and recommendations are reported to stakeholders in a suitable format for target group.
3 Design risk control strategies and advise on implementation	3.1 The hierarchy of control is applied to design risk control strategies, noting that personal protective equipment is regarded as the least satisfactory control measure. 3.2 Inadequacies in existing control measures are identified and remedial advice is provided. 3.3 Effective consultation and collaboration is undertaken with organisation, affected employees and others when developing, selecting and implementing risk control measures. 3.4 External sources of information and data and specialist advisers are accessed as required on nature of health hazard, level of risk, and risk control options.
4 Monitor and evaluate control strategies to minimise workplace exposures	4.1 Quality and outcomes of interventions are monitored and evaluated regularly in consultation with stakeholders and relevant employees. 4.2 Modifications to interventions are facilitated including consultations, as required, as a result of findings of regular evaluation and monitoring. 4.3 Training needs are identified in consultation with workplace stakeholders, documented and arranged if required. 4.4 Recommendations are made regarding future interventions as a result of evaluation and monitoring.

Required Skills and Knowledge

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

Required skills:

Look for evidence that confirms skills in:

- relating to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
- communicating effectively with personnel at all levels of organisation and OHS specialists and, as required, emergency service personnel
- preparing reports for a range of target groups including OHS committee, OHS representatives, managers, supervisors and other stakeholders
- applying continuous improvement and action planning processes
- achieving change using project management processes
- managing own tasks within time frame
- using consultation and negotiation skills, particularly in relation to developing plans and implementing and monitoring designated actions
- contributing to the assessment of the resources needed to systematically manage OHS and, where appropriate, access resources
- analysing relevant workplace information and data, make observations including of workplace tasks and interactions between people, their activities, equipment, environment and systems
- carrying out simple arithmetical calculations (e.g. % change), and producing graphs of workplace information and data to identify trends and recognise limitations of information and data
- using electronic information and data systems to enter workplace information and data and produce effective graphical representations
- interpreting information and data to identify areas for improvement
- using a range of communication media
- conducting effective formal and informal meetings
- using language and literacy skills appropriate to the workgroup and the task
- using computer and information technology skills to access internal and external information and data on OHS
- undertaking basic research to access relevant information and data
- using measuring equipment including reading scales and dials applicable to selected hazards
- interpreting results from workplace measurements
- paying attention to detail when making observations and recording outcomes

Required knowledge:

Look for evidence that confirms knowledge and understanding of:

- roles and responsibilities under OHS legislation of employees including supervisors, contractors, OHS inspectors etc

- principles of duty of care including concepts of causation, foreseeability, preventability
- legislative requirements for OHS information and data, and consultation
- roles and responsibilities in relation to communication and consultation for OHS committees, OHS representatives, line management, employees and inspectors
- difference between hazard and risk
- risk as a measure of uncertainty and the factors that affect risk
- requirements under hazard-specific OHS legislation and codes of practice
- characteristics, mode of action and units of measurement of major hazard types
- characteristics of sound and vibration, units of noise, sound pressure levels, noise dose and process of hearing loss
- different categories of chemicals such as dangerous goods, hazardous substances, poisons, carcinogens etc
- types of hazardous dusts and fibres, hazardous environments and the possible explosion and ill health outcomes from exposure to dusts, particulates etc
- the effect of electricity on the body and the difference in action of fuses/circuit breakers and resident current devices
- difference between ionising and non-ionising radiation and the principles of decay, the effect of radiation on the body
- physiology relevant to understanding mode of action of physical, biological and chemical agents on the body and how they produce harm
- physiology related to temperature control of the human body, hazards of working in hot environments, and appropriate controls
- direct and indirect influences that impact on OHS and the environment in the design of product/s
- hierarchy of control and considerations for choosing between different control measures, such as possible inadequacies of particular control measures
- standard industry controls for a range of hazards
- the role of control programs for microbiological hazards such as vaccination, local ventilation, decontamination
- requirements for individual fitting, use, maintenance and storage of a range of PPE items
- requirements for selection and limitations of use of a range of PPE items
- types of hazard identification tools including JSA
- limitations of generic hazard and risk checklists and risk ranking processes
- pertinent sections of relevant Australian and other standards such as AS/NZS 4360: Risk management, National Standard for the Storage and Handling
- types of measurement and monitoring equipment, including intrinsically safe equipment, calibration requirements and principles of how the equipment takes the measurement and limitations in use
- requirements for control of work permits/written authorities in workplace monitoring activities
- mathematical knowledge of units of measurement, logarithmic scales, decimals and order of magnitude relevant to making and interpreting measurements

- exposure standards, their limitations and their practical use
- sampling methodologies, application and related statistical measures
- principles and practices of a systematic approach to managing OHS
- other function areas that impact on the management of OHS
- internal and external sources of OHS information and data
- how the characteristics and composition of the workforce impact on risk and the systematic approach to managing OHS e.g.
 - labour market changes
 - structure and organisation of workforce e.g. part-time, casual and contract workers, shift rosters, geographical location
 - language, literacy and numeracy
 - communication skills
 - cultural background/workplace diversity
 - gender
 - workers with special needs
- organisational behaviour and culture as it impacts on OHS and on change
- ethics related to professional practice
- organisational OHS policies and procedures
- nature of workplace processes (including work flow, planning and control) and hazards relevant to the particular workplace
- sources of occupational disease and their prevention
- knowledge of toxicology of hazardous materials and potential health effects in the workplace
- key personnel, including identifying 'change agents', within workplace management structure
- formal and informal communication and consultation processes and key personnel related to communication
- language, literacy and cultural profile of the work group
- organisational culture as it impacts on the workgroup

Evidence Guide

The Evidence Guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the unit descriptor, performance criteria, The range statement and the Assessment Guidelines for the Public Sector Training Package.

Units to be assessed together

Co-assessed units that may be assessed with this unit to increase the efficiency and realism of the assessment process include:

- PSPETHC601B Maintain and enhance confidence in public service
- PSPGOV605A Persuade and influence opinion
- PSPLEGN601B Manage compliance with legislation in the public sector
- PSPSOHS601A Develop a systematic approach to managing OHS
- PSPSOHS603A Analyse and evaluate OHS risk
- PSPSOHS604A Apply ergonomic principles to control OHS risk

Overview of evidence requirements

In addition to integrated demonstration of the elements and their related performance criteria, look for evidence that confirms:

- knowledge requirements of this unit
- skill requirements of this unit
- application of employability skills as they relate to this unit.

Resources required to carry out assessment

Resources essential for assessment include:

- legislation, policy, procedures and protocols relating to the application of occupational hygiene principles to control OHS risk
- workplace documentation, case studies and workplace scenarios to capture the range of situations likely to be encountered when applying occupational hygiene principles to control OHS risk.

Where and how to assess evidence

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when applying occupational hygiene principles to control OHS risk, including coping with difficulties, irregularities and breakdowns in routine
- application of occupational hygiene principles to control OHS risk in a range of 3 or more contexts or occasions, over time

Assessment methods should reflect but not exceed workplace

demands, such as literacy, and the needs of individuals who might be disadvantaged.

Assessment methods suitable for valid and reliable assessment of this unit must use authenticated evidence from the workplace and/or training courses and may include a combination of two or more of:

- workplace projects
- simulation or role plays
- case studies and scenarios
- observation
- portfolios

The assessment environment should not disadvantage the candidate and where the person has a disability the principle of reasonable adjustment should be applied during assessment.

For consistency of assessment

Evidence must be gathered over time in a range of contexts to ensure the person can achieve the unit outcome and apply the competency in different situations or environments.

Range Statement

The range statement provides information about the context in which the unit of competency is carried out. The variables cater for differences between States and Territories and the Commonwealth, and between organisations and workplaces. They allow for different work requirements, work practices and knowledge. The range statement also provides a focus for assessment. It relates to the unit as a whole. Text in *italics* in the Performance criteria is explained here.

Workplace factors may include:

- chemical agents such as:
 - solids, liquids, gases, hazardous or non hazardous substances and toxins, vapours, dusts, mists, fibres
 - chemical hazards occurring through airborne exposure and through skin contact
 - other chemical contaminants arising through direct use or as by-product contaminants
- physical agents such as:
 - noise, vibration, pressure, light, thermal
 - ionising and non-ionising radiation
- biological agents such as:
 - viruses
 - bacteria
 - zoonoses
 - animals
 - animal products
 - plants and plant products
 - allergens that may induce asthma, dermatitis etc
- ergonomic factors such as:
 - body position in relation to use of equipment or controls/awkward postures
 - harmful repetitive work
- psychosocial factors such as:
 - exposure to harmful/psychological stress at work such as work demand, environment

A **hazard** is:

- a source or situation with a potential for harm in terms of human injury or ill health, damage to property or the environment, or a combination of these

OHS specialists may include:

- specialist occupational hygienists
- ergonomists
- internal and external OHS professionals
- occupational health advisers
- allied health

- toxicologists
- injury management and return to work advisers

Other advisers may include:

- equipment manufacturers and suppliers
- substance manufacturers, importers and suppliers
- engineers (ventilation, mechanical, chemical, electrical)

Sources of exposure may include:

- substances/products created or generated by work processes, for example fume, carbon monoxide and dust
- noise etc produced by plant and machinery
- working with animals and animal products
- needle stick exposures
- occupationally related contact

Related factors may include:

- synergistic/potential effects (increased effect of multiple exposures) compared with antagonistic effects (lessening effects of two or more substances than the effect of each in isolation)
- dose related impacts

Exposure standards are:

- established concentrations of substances that are given as guidance in assessing the risk of exposure
- may be state, national and/or international publications

Hierarchy of control means developing risk controls within the following priority order:

- eliminate hazards
- and where this is not practicable, minimise risk by:
 - substitution
 - isolating the hazard from personnel
 - using engineering controls
 - using administrative controls (e.g. procedures, training)
 - using personal protective equipment (PPE)

External sources of information and data include:

- state and territory OHS regulatory bodies
- National Occupational Health and Safety Commission (NOHSC)
- Australian standards, national codes of practice, guidance notes
- engineers
- external OHS professionals and specialists
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- National Health and Medical Research Council (NHMRC)
- union and employer associations
- academic institutions, centres of research and libraries
- Workplace Exposure Standards (WES)
- material safety data sheets (MSDSs)
- American Conference of Governmental Industrial Hygienists (ACGIH)

Training needs may include:

- OHS professional associations
- databases such as NICNAS (National Industrial Chemicals Notification and Assessment Scheme)
- manufacturers' manuals and specifications
- legislative requirements
- risks associated with specific tasks
- methods of minimising exposure
- interpretation of information and data contained in material safety data sheets (MSDS), technical documents or brochures about substances, tools, equipment and plant
- workplace housekeeping
- personal hygiene
- maintenance of equipment, tools and plant to ensure effective performance of control systems
- requirements for health monitoring of use of certain workplace hazardous substances such as lead
- correct selection, use, servicing, storage and disposal of PPE

Unit Sector(s)

Not applicable.

Competency field

Specialist Occupational Health & Safety.