



Australian Government

Department of Education, Employment and Workplace Relations

RIIOHS404A Implement and monitor health and hygiene management systems

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers implement and monitor health and hygiene management systems in the coal and metalliferous mining industries. It includes: identifying the effects and symptoms associated with workplace health and hygiene; identifying and monitoring health and hygiene standards and systems; implementing and monitoring health and hygiene protection measures for individuals; identifying, implementing and monitoring control measures for operational health and hygiene hazards; and auditing and reviewing systems in respect of health and hygiene measures.

Application of the Unit

This unit is appropriate for those working in a supervisory role or as a technical specialist, within:

- Coal mining
- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

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 performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify the effects and symptoms associated with workplace health and hygiene	1.1. Access, interpret and apply compliance documentation relevant to health and hygiene management systems 1.2. Identify the causal chain and focus of common diseases 1.3. Identify the effects and symptoms of stress on employee health and effectiveness 1.4. Identify the effects and symptoms of shift work on employee health and effectiveness 1.5. Identify the effects and symptoms of alcohol and other drug/substance abuse on employee health and effectiveness
2. Identify and monitor health and hygiene standards and systems	2.1. Identify and interpret legislative, industry and site standards for health and hygiene 2.2. Identify and monitor health and hygiene requirements within the mine operational planning and management systems 2.3. Identify and monitor health and hygiene requirements within the mine safety management plans 2.4. Monitor and review work injury recording systems as required by legislation and organisational guidelines 2.5. Monitor and review sanitation and hygiene systems as required by legislation and organisational guidelines 2.6. Monitor and review chemical and hazardous substances control systems as required by legislation and organisational guidelines 2.7. Implement and monitor atmosphere and dust control measures in accordance with the ventilation management plan
3. Implement and monitor health and hygiene protection measures for individuals	3.1. Implement, monitor and review health and hygiene training systems and programs 3.2. Implement and monitor personal protective equipment systems and measures and monitor the effectiveness of protection 3.3. Resource, implement and monitor systems and procedures for manual and assisted handling

4. Identify, implement and monitor control measures for operational health and hygiene hazards	4.1. Identify, implement and monitor control measures and standards related to mine lighting 4.2. Identify, implement and monitor control measures and standards related to vibration 4.3. Identify, implement and monitor control measure and standards related to noise 4.4. Identify, implement and monitor control measures and standards associated with exposure to extremes of heat/cold 4.5. Identify, implement and monitor control measures associated with equipment and materials 4.6. Identify, implement and monitor air quantity and quality control measures 4.7. Identify, implement and monitor control measures and standards related to the handling, storage and conveyance of explosives 4.8. Identify, implement and monitor control measures and standards related to radiation and radiation sources
5. Audit and review systems in respect of health and hygiene measures	5.1. Review the effectiveness of health and hygiene management, as part of both operational and safety hazard management systems, for compliance with legislation, industry practice and the appropriate mine management plan 5.2. Investigate and respond to circumstances which give rise to or threaten the health and hygiene of individuals, or refer to the appropriate authority for response 5.3. Audit and/or review the health and hygiene training program/content for currency, relevance and compliance 5.4. Review and/or audit recording and reporting systems for compliance with legislation, industry and mine requirements

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to implement and monitor health and hygiene management systems:

- apply legislative, organisation and site requirements and procedures
- access, interpret and apply technical information
- communicate ideas and information
- plan and organise activities
- prepare and document systems and procedures
- apply risk management processes and techniques
- conduct enquiries / investigations and prepare reports
- access, evaluate and apply data from monitoring systems and equipment / plant work with others and in teams
- validate training analysis results
- apply review and audit processes and techniques

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to implement and monitor health and hygiene management systems:

- legislative and industry health and hygiene standards and compliance requirements
- health and hygiene systems development processes and techniques
- procedures and techniques for establishing health and hygiene objectives and criteria
- health and hygiene management systems information procedures
- risk management and control theory and processes
- fundamentals of human disease and injury
- causes, symptoms and impacts of stress on employees
- potential impacts of drug and substance abuse
- individual medical standards and examination systems
- rehabilitation processes and techniques
- personal protective equipment and measures
- manual handling codes and practices
- sanitation and hygiene systems and procedures
- mine hazards associated with hazardous substances
- chemical information management systems (MSDS or equivalent)

- health hazards associated with atmosphere and the likely impacts on personnel
- atmosphere and dust control and protection systems
- health hazards and controls associated with mining processes and the likely impacts on personnel
- health hazards and controls associated with exposure to heat / cold conditions
- health hazards associated with:
 - explosives
 - radiation and radiation sources
 - equipment and plant
 - lighting
 - vibration
 - noise
- health and hygiene training requirements and systems

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following: • knowledge of the requirements, procedures and instructions for the implementation and monitoring of health and hygiene management systems • implementation of appropriate procedures and techniques for the safe, effective and efficient implementation and monitoring of health and hygiene management systems • working with others to plan, prepare, implement and monitor health and hygiene management systems • provision of clear and timely instruction and supervision by the individual of those involved in applying health and hygiene management systems • evidence of the consistent successful implementation and monitoring of health and hygiene management systems
Context of and specific resources for assessment	• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job.

	• Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate procedures and techniques for the safe, effective and efficient achievement of the required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to plan, prepare, implement and monitor health and hygiene management systems • provision of clear and timely instruction and supervision by the individual of those involved in the application of health and hygiene management systems
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and

	equity issues.
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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, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant compliance documentation may include:	• legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
The causal chain and focus of disease may include:	• basic cell structure • sites where toxic substances can cause disease • routes of entry, including: • mechanisms covering inhalation • absorption • ingestion • routes of exit • physic injuries
Common diseases may include the fundamental causes and effects of:	• lung disease • chronic bronchitis • emphysema • heart disease • pulmonary oedema • pulmonary fibrosis • cancers • hypersensitivity • occupational asthma • alveoli tis • dermatitis • allergic contact dermatitis • skin cancer • poisoning • nervous system disease • circulatory system disease
Common disease related to routes	• liver

of exit may include those involving:	• kidney • bladder • reproductive systems • cover the latency potential
Causes of stress (stressors) may include:	• environmental factors • bad workplace design • work hazards • job design • job monotony • contractual conditions • esteem values • relationship difficulties • lack of control • physical impairments
Stress effects may include:	• fatigue • anxiety • hypertension • depression • hostility and aggression • psychosomatic complaints • neuroses They may also be associated/linked with: • bronchial asthma • nervous rashes • diabetes • some cancers
Shift work responses are related to circadian rhythms (24 hour rhythms) and may result in:	• disturbed or inadequate sleep • fatigue • depression and neuroses • dependence on drugs • susceptibility to sickness • disturbed family and social life
Alcohol and other drug/substances may include:	• alcohol • nicotine • prescription drugs • other medicinal drugs • illicit drugs and substances
Health and hygiene legislative, industry and site, standards may include:	• policy • accountability • supervision • workforce involvement

	• physical environment • risk assessment practices • work planning • external information • medical/first-aid • rehabilitation
Work injury recording systems may include:	• definitions (occupational injury, fatal injury, work days lost, employees, time frames) • data management • reporting parameters • reporting • investigation
Sanitation and hygiene infrastructure may include:	• systems for water (potable) and waste water • maintenance of cleanliness and sanitation • toilets • washing facilities • hand basins • crib rooms / dining areas • shower / changing facilities • vermin control and eradication • drainage of stagnant water • waste decaying wood • refuse disposal • sheltered reception areas • regular checking processes
Chemical and hazardous substances in mines may include:	• industrial chemical • diesel • hydraulics • oils • liquefied petroleum gas • polyurethane • asbestos
Chemical and hazardous substance control systems may include:	• elimination • substitution • isolation and protection • engineering controls (ventilation, containment etc) • safe work practices • personal protective equipment • new product management measures (need, assessment, controls, surveillance, induction and training)

Atmosphere and ventilation measures may include:	• identification of air standards (oxygen, impurities, contaminants, dust) • establishment of appropriate evaluation and air quality control systems • assessment of protection needs • authorisation for nominated activities • maintenance of adequate records of air quality levels
Dust control measures may include:	• establishment of a dust control program • monitoring and analysis of dust • identification and responses to dust problems • selection and application of appropriate methods to determine dust concentrations
Training and re-training may include:	• induction • on-the-job discussions • safety meetings • OHS committees • circulars • safety training sessions • encouragement incentives • input into developments • health and hygiene inspections
Personal protection may include those for:	• hearing • eyes (industrial, radiation, ultra-violet, infra-red radiation) • respiratory protective devices • hand (gloves) • head • feet (boots) • long hair • protective clothing • safety belts and harnesses • safety signs
Mine lighting requirements may include:	• general work areas • personal lighting for underground use • machinery mounted lighting systems • visual displays • emergency lighting systems
Vibration may contribute to, or result in:	• bone damage • stomach and digestive problems • heart problems • varicose veins

	• varicocle • piles • disruption to the nervous system resulting in: • weakness • fatigue • loss of appetite • irritability • headache • insomnia • impotence
Vibration hazard analysis may include:	• extent of damage factors (time of exposure, vibration frequency rate, amplitude of vibration) • types of vibration (whole body vibration, VLF whole body vibration, LF whole body vibration) • hand-arm vibration (vibration white fingers)
Vibration controls may include:	• vibration surveys • establishment of vibration limits • establishment of targets for vibration limits • provision of training in vibration measurement • establishment, implementation and monitoring of vehicle / equipment design criteria (operation, seating, mountings, portable machinery)
Noise management controls may include:	• establishment of noise limits • regular measurement and recording of noise • engineering / design of noise controls • establishment of noise protection zones • identification • provision and testing of noise protection equipment • adequate training of personnel • an appropriate audiometric testing regime
Heat/cold exposure protection may include:	• adequate training of personnel • measurements of heat stress index • monitoring of index and employees • establishment of cool rest areas • provision of cool water • provision of canopies, cabins and appropriate clothing
Equipment and materials control	• selection and acquisition procedures

measures may include:	• materials safety data sheets (MSDS) • risk assessment • health and safety audits • work procedures • training requirements for operation • maintenance procedures
Explosive control systems may include:	• legislative requirements • selection and procurement • storage • conveyance • handling • handling of old / deteriorated stock • misfires • entry after blasting • charging • inspections • initiation • storms • electronic risks

Unit Sector(s)

Occupational Health and Safety

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.