



**UEP06**  
**Electricity Supply Industry – Generation Sector**  
**Training Package**

**Volume 2 – Part 1**  
**Preliminary Information and**  
**Glossaries**

**Volume 2 of 2**

## Electricity Supply Industry – Generation Sector Training Package UEP06

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# Table of Contents

## Volume 2 Part 1

Preliminary Information .....	4
Training Package Layout .....	4
Volume 1: Structure and Overview .....	5
Volume 2: Competency Standard Units – Content and Scope .....	6
Definitions/Glossary .....	6
Scope.....	6
Application.....	6
References.....	6
Definitions – Generation.....	7
Terms related directly to Occupational Health and Safety .....	21
Glossary of OHS Terms .....	22

## Volume 2 Part 1

### Preliminary Information

This Volume (Vol 2 Part 1) contains a Definitions/Glossary of Electricity Supply Industry Terms which should be used in conjunction with the competency standard units. In addition, the National Occupational Health and Safety Commission Glossary of Terms has been included. Users will find definitions here that clarify any Occupational Health and Safety specific terms. Where a term in the glossary is followed by a number, eg *Tools and equipment (2)*, the number indicates the AQF level.

### Training Package Layout

This revised Electricity Supply Industry – Generation Sector Training Package has been developed, reviewed and validated through extensive industry consultation. It reflects the views of a wide cross-section of the industry and its key stakeholders/practitioners throughout Australia.

The Training Package has been constructed as a two volume set. Volume 1 covers the overall Package framework and completion requirements for qualifications. Volume 2 includes the content details of parts and sub-sections of Volume 1. The two volumes form an integrated whole and are not to be used independently of each other.

#### Volume 1:

Preliminary Information

The Electricity Generation Sector Industry

Overview of Training Packages

ESI – Generation Sector Industry Training Package

Part 1 Qualifications Framework

Part 2 Competency Standards Overview and Index

Part 3 Assessment Guidelines

Appendix A – New Apprenticeships

Appendix B – Sample Assessment Instruments

Enclosures

- Enclosure A: List of Sample Assessment Instruments

- Enclosure B: Administrative Forms

- Enclosure C: Glossary of Terms

#### Volume 2

Preliminary Information

Part 1 Definitions/Glossary

Part 2 Competency Standards

2.1 Competency Standard Units

2.1.1 Operations Units UEPOPS201A – UEPOPS250A

2.1.2 Operations Units UEPOPS301A – UEPOPS357A

- 2.1.3 Maintenance Units UEPMNT301A – UEPMNT360A
- 2.1.4 Operations Units UEPOPS401A – UEPOPS442A
- 2.1.5 Maintenance Units UEPMNT401A – UEPMNT433A
- 2.1.6 Operations Units UEPOPS501A – UEPOPS515A
- 2.1.7 Maintenance Units UEPMNT501A – UEPMNT504A
- 2.1.8 Imported Units

Part 3 Language, Literacy and Numeracy

Part 4 Key Competencies

Part 5 Skills Enabling Employment

## **Volume 1: Structure and Overview**

### **Part 1 – Qualification Framework**

Part 1 outlines how the qualifications are structured, along with scope/descriptions, composition and content. Completion and issuance requirements are provided as well as advice on flexibility arrangements, with entry and exit pathways and articulation arrangements. Titles and codes of the respective list of qualifications to be issued are also included.

### **Part 2 – Competency Standards Overview and Index**

Part 2 outlines how the competency standards were developed (in broad terms), the industry coverage they apply to, as well as the format and construction of the individual competency standard units. The list of competency standard units and their scope/description is included in this part. Matters related to language, literacy and numeracy, access, equity and cultural diversity, and any regulatory arrangements, for which the competency standard units may apply is also included. Importantly, each Unit is interrelated and linked with the Definitions/Glossary and Essential Knowledge and Associated Skills sections of the Volume. No competency standard unit is to be used in isolation or exported without these interrelated components.

There are over 125 competency standard units included in Volume 2, each listed according to its respective industry discipline area.

Alignment to and incorporation of Competency Standards Units from the allied Transmission, Distribution and Rail Training Package are also included as are relationships between competency standard unit(s) and the key competencies and skills for employers.

### **Part 3 – Assessment Guidelines**

Information in Part 3 outlines how the assessment guidelines inform a Registered Training Organisation (RTO) about the infrastructure requirements to enable them to carry out training delivery assessment activities related to the Training Package. It includes such things as assessment systems, the role of RTOs, assessment pathways, recognition arrangements, assessor qualifications and sources of information.

Included also are two Appendices — Appendix A: New Apprenticeships Application and Appendix B: Sample Assessment Instruments. Appendix B contains Enclosures A, B and C: A contains a List of Sample Assessment Instruments; B contains Administrative Forms and C contains the Glossary of Terms.

## **Volume 2: Competency Standard Units – Content and Scope**

Volume 2 contains the competency standard units in their respective CSU Schedules, eg Schedule 1 – Operations units AQF2, Schedule 5 – Maintenance units AQF4.

Volume 2 also contains a Definitions/Glossary, which provides a description/explanation of certain/assigned words that appear in this document. Also included are definitions relating to literacy and numeracy skills; Key Competencies and skills enabling employment.

*Note: The two volumes form an integrated whole and must not be used independently of each other.*

## **Definitions/Glossary**

### **Scope**

The competency standard unit described in this Part of the Training Package covers competency standard units for the Electricity Supply Industry — Generation Sector.

### **Application**

The information contained in each competency standard unit includes the intended use of the unit for assessment and a training program(s).

### **References**

#### **Regulations**

The work functions described by competency standard units in this Training Package may be subject to statutory regulations. Where this is the case the particular regulations will depend on local jurisdictions and knowledge and application of such regulations within the scope of the unit will be an aspect of evidence in deeming a person competent.

#### **Reference documents**

Each part of the Training Package will include a list of reference documents. These are a component of competency which assist in developing training programs and assessing competency. Reference documents include relevant legislation, regulation, industrial instruments, codes of practice, guidelines and advisory standards and policies.

Examples may include industry-preferred training and assessment models, anti-discrimination and equal employment opportunity statutes encompassing application of access, equity and cultural diversity principles associated with under-represented groups.

## Definitions – Generation

Term	Explanation
<b>Access permits</b>	A form-type document giving formal permission to enter a specified work area when it is safe to do so and is part of the risk control measures for the area.
<b>Access, equity and cultural diversity</b>	<p>The process through which employers meet requirements set out in the relevant anti-discrimination and equal employment opportunity legislation.</p> <p>Primarily, this process looks to ensure that the workplace is a sound reflection of society as a whole, in that persons from a broad range of backgrounds participate in the workplace, including those with a disability; indigenous persons; those from non-English speaking backgrounds, and women.</p> <p>This Training Package promotes appropriate language, literacy and numeracy considerations and strategies within the training and assessment field and the Vocational Education and Training (VET) sector and the Industry.</p>
<b>Advanced</b>	High degree of knowledge and skill as would be demonstrated by an ‘expert’ operative (highly developed analytical, conceptual and problem solving skills).
<b>Alkalinity reduction</b>	Process of controlling pH of cooling system waters to offset increasing alkalinity due to carbon dioxide loss. Required to maintain optimum pH for effective chlorination and plant protection. Usually done by sulphuric acid injection.
<b>Analysis</b>	Resolution of data into understandable information and its subsequent rational interpretation.
<b>Apparatus</b>	Equipment used in the Power Generation processes.
<b>Ash</b>	Residue of combustion and, in particular, the bottom ash of pulverised fuel combustion.
<b>Assemble</b>	Refers to the selection, visual inspection, placement and securing of components to form an item of plant, equipment or a structure
<b>Assessment</b>	Diagnosis of performance, classification of eligibility, award of credentials, assurance of progress of learning.
<b>Auxiliary steam system</b>	Steam used to assist the generation process, such as air extraction, gland sealing.

Term	Explanation
<b>Basic</b>	Fundamental and simplest application.
<b>Batching (chemicals)</b>	Mixing required quantities of chemicals predominantly for water treatment.
<b>Boiler</b>	Vessel for producing steam under pressure (generic). Plant used in power production – voluminous construction that produces large volumes of high pressure steam required for the thermal power generation process. Boilers contain several stages of superheating and may also contain reheating elements.
<b>Brine concentrator</b>	Plant for concentrating salts in discharged cooling waters, purifying the majority of water for re-use.
<b>Bulk</b>	Large quantity.
<b>Chemicals</b>	Chemicals used in the power generation processes.
<b>Clean</b>	Make site, buildings, plant and equipment safe, tidy and clear of obstructions (including dirt and grime).
<b>Codes of Practice</b>	Relevant standards required within Australia.
<b>Commissioning</b>	Activities carried out to make plant ready for normal operation.
<b>Communications</b>	Conveying information by an approved medium.
<b>Competency</b>	The ability to exercise knowledge and skill in the process of carrying out required tasks/duties.
<b>Competency Standard Unit (CSU)</b>	Competency Standards are made up of a number of Competency Standard Units which describe a key function or role in a particular job/occupation. Each unit identifies a discrete workplace requirement and includes the knowledge and skills that underpin competency, as well as language, literacy and numeracy and OHS requirements. A CSU is usually linked to one or more AQF qualifications.
<b>Component</b>	Any self-contained part, combination of parts, subassemblies of units, which perform a distinctive function necessary to the operation of a system.
<b>Compressed</b>	Reduced in volume.
<b>Condensate system</b>	Part of a generating unit steam/water cycle, in particular the low pressure water system from the condenser hot well to the boiler feed pump suction, including pumps, low

Term	Explanation
	pressure feed water heaters, air ejectors, water treatment plants, de-aerators.
<b>Condenser</b>	Chamber beneath a turbine's low pressure cylinder(s) in which steam is condensed to water.
<b>Condensing</b>	Make denser or more compact. Main application in the generation industry is the condensing of steam to water.
<b>Condition changing</b>	Voltage control. Apparatus may include tap changers, reactors and synchronous condensers.
<b>Condition monitoring</b>	Process of measuring key performance characteristics of an item of equipment on a continuous or regular basis, usually for the purpose of optimising maintenance requirements.
<b>Conduct</b>	<ol style="list-style-type: none"> <li>1. Manner of doing business or work.</li> <li>2. Transmission of heat or power.</li> </ol>
<b>Contaminated</b>	Polluted. Degraded from a pure or desired state.
<b>Cooling systems</b>	Various methods of controlling temperature rise in plant by the transfer of heat to a cooling medium during the power generation process.
<b>Coordinate</b>	Cause to function and/or link together in a proper order.
<b>Crisis</b>	Time of danger, acute risk to system or plant, possibility of imminent failure or collapse.
<b>Critical</b>	Refers to incidents involving risk and suspense that may require a decisive and crucial response. Sequence of stages determining minimum time needed for an operation (critical path).
<b>Decommission</b>	Remove from service permanently or for a long period of time.
<b>Defect</b>	Any confirmed abnormal condition of an item whether or not this could eventually result in a failure.
<b>Desired</b>	Wanted earnestly, bordering on required or necessary. The preferred option.
<b>Diagnose and repair</b>	Corrective maintenance which is the recognition, location and rectification of faults.
<b>Direct (work)</b>	Set direction/requirements and instruct or allocate staff to

Term	Explanation
	achieve the required outputs.
<b>Distribution system</b>	Integrated electricity supply system.
<b>Dogging</b>	Attachment of, and the direction of, the lifting of materials in conjunction with a manned crane or hoist.
<b>Drawings</b>	Block, wiring, PID, schematic, layout drawings and site plans.
<b>Draft system</b>	Plant used to supply adequate air for combustion. May include fans, air heaters, dampers etc.
<b>Dust</b>	Main application: fly ash that is collected in either electrostatic precipitators or fabric filters.
<b>Efficiency</b>	Maximising plant performance by operating to designed parameters.
<b>Electronic equipment</b>	Equipment where the majority of components are electronic.
<b>Emergency response</b>	Responding to a sudden state of danger or a condition needing immediate attention/treatment.
<b>Enterprise</b>	Electricity generators and their procedures and standards which can refer to isolation/permit procedures, station/depot instructions, work orders and agreed quality assurance requirements.
<b>Enterprise procedures</b> <i>Also described as Workplace procedures</i>	<p>Formal arrangements of an organisation, enterprise, or statutory authority of how work is to be done and by whom.</p> <p>Note. Examples of enterprise procedures are documented in quality management systems, safety management systems, work clearance systems, work instructions, reporting systems and arrangements for dealing with emergencies.</p>
<b>Environment</b>	<p>The area surrounding the work site which can be directly or indirectly affected by occurrences at the work site – includes the atmosphere, soils, drains, underground water tables and the ecosystem. Protection of the <i>environment</i> would require the proper disposal of waste materials, restriction of burning off, the correct handling of toxic substances, the containment of CFCs and the like.</p> <p>The protection of the environment would also include the minimisation of those factors that contribute, directly or indirectly, to the production of greenhouse gases.</p> <p>These contributing factors might include the minimisation</p>

Term	Explanation
	of construction waste materials, the correct use of enterprise vehicles and machinery, the re-use or recycling of trade materials where possible and the overall reduction of energy usage through general awareness and the use of appropriate technologies.
<b>Environmental control</b>	Protection of the surrounding environment. See also <i>environment</i>
<b>Erect</b>	The actions of preparing foundations, the erection and stabilisation of structures and the placement of electrical equipment.
<b>Essential knowledge and associated skills (EKAS) learning specification (LS)</b>	<p>Provide specific additional advice in facilitating consistency and reliability in resource development and delivery. The learning specifications are premised on the content of the Essential Knowledge and Associated Skills section of the unit.</p> <p>The specifications are designed to:</p> <ul style="list-style-type: none"> <li>• Provide the depth and breadth of essential knowledge and associated skills to be learned</li> <li>• Ensure they support the needs of the workplace</li> <li>• Contain assessment strategies, including a table of specifications, to increase validity, reliability and fairness</li> <li>• Detail the resources required for satisfactory delivery in the learning environment</li> <li>• Provide clarification regarding the type and quantity of evidence needed for assessment purposes</li> <li>• Support a variety of delivery modes (eg face-to-face, distance, computer assisted learning or other)</li> <li>• Provide content and structure that maximizes learning retention</li> <li>• Provide a clear purpose statement about their relationship to the overall educational program</li> </ul>
<b>Explosive power tool</b>	Ram set gun or similar tools.
<b>External</b>	Areas external to the power generation site.
<b>Extra Low Voltage</b>	A voltage less than 50 volts AC or 120 volts DC
<b>Fabricate</b>	To take raw stock and make detailed parts by a variety of methods, such as cutting, bending, attaching. It may be applied to metal and composite structures, electrical parts, etc.

<b>Term</b>	<b>Explanation</b>
<b>Facilitate</b>	Promote or help forward.
<b>Feedwater</b>	High pressure and high temperature treated water supplied to a boiler.
<b>Feedwater system</b>	Part of a generating unit's steam/water cycle, in particular the high pressure water system from the feed pump suction to the boiler including pumps, economiser high pressure feed water heaters, feedwater regulating valves.
<b>Field (operations)</b>	External to the main centre of operation.
<b>Forklift</b>	Vehicle with fork in front for lifting and moving materials.
<b>Fuel</b>	Used for combustion and may include coal, gas, oil, refuse.
<b>Generation</b>	Production of electricity.
<b>Hardware</b>	Material or non-moving parts of systems, including items such as insulators. 'Hardware' does not include electrical apparatus.
<b>High Voltage</b>	Equal to, or greater than, 1000 volts AC or 1500 volts DC.
<b>HV</b>	High Voltage.
<b>HV apparatus</b>	Equipment used for transportation and control of electricity.
<b>Implement</b>	Put into effect.
<b>Inspect</b>	To examine or check a system, assembly, component or part by visual or physical means for the purpose of identifying defects or limits.
<b>Inspection</b>	Examine closely.
<b>Install</b>	The fitting and positioning of new plant, equipment and/or systems, and the replacement of plant, equipment and/or systems following overhaul or maintenance.
<b>Intermediate</b>	Skills and knowledge greater than a basic level but with room for further development available (experienced but not yet expert).
<b>Internal</b>	Areas internal to the power generation site.
<b>Internal combustion dual fuel</b>	Engine having two fuel sources (normally diesel fuel and gas).

<b>Term</b>	<b>Explanation</b>
<b>reciprocating engine</b>	
<b>Internal combustion single fuel reciprocating engine</b>	Engine having one fuel source.
<b>Isolated power systems</b>	Power systems not connected to a power grid, i.e. Alice Springs.
<b>Key role</b>	Essential or of vital importance.
<b>Lay</b>	The placement in position of underground cables in preparation for jointing and terminating.
<b>Learning Specifications (LS)</b>	See Essential knowledge and associated skills (EKAS) learning specification (LS)
<b>Liaise</b>	Communicate and cooperate with an outside organisation, section or person.
<b>Lifting and load shifting equipment (1)</b>	Cranes and hoists that do not require a licence to operate.
<b>Lifting and load shifting equipment (2)</b>	Cranes and hoists that do require a licence to operate.
<b>Local</b>	Controlling equipment from controls located adjacent to an item of plant.
<b>Locomotive</b>	A diesel or steam engine providing the motive power to haul load-carrying wagons.
<b>Low Voltage</b>	A Voltage greater than 50 volts AC but not exceeding 1000 volts AC, or, A Voltage greater than 120 volts DC but not exceeding 1500 volts DC.
<b>Lubrication</b>	Minimisation of friction by the application of specified oils or greases.
<b>LV</b>	Low Voltage.
<b>Maintain</b>	Preventative maintenance and the replacement of damaged or faulty components found during preventative maintenance.
<b>Make and spread (stockpile)</b>	The formation of, and the management of, a stockpile (usually coal).
<b>Manage (plant</b>	Planning, preparing, organisation and actual operation of major plant start-ups or shutdowns plus the in service

<b>Term</b>	<b>Explanation</b>
<b>operations)</b>	control of normal and abnormal plant operating conditions.
<b>Manoeuvring</b>	Planned and controlled movements towards a defined objective.
<b>Material</b>	Matter used in the power production processes including raw, processed, building plant or offices materials.
<b>Maximum</b>	Highest allowable limit.
<b>Minimum</b>	Lowest allowable limit.
<b>Modify</b>	Alterations, additions, adjustments or re-adjustments to existing equipment
<b>Monitor</b>	Maintain regular surveillance (see also <i>condition monitoring</i> ).
<b>Network</b>	Chain of interconnected electrical conductors, integrated electricity grid system.
<b>Non-routine</b>	Outside normal daily operations or practices.
<b>Occupational Health and Safety Standards</b>	Refers to those which are relevant within Australia.
<b>Operate</b>	Bring about a controlled change in plant output.
<b>Operational</b>	Able to operate or function.
<b>Operator (power generation)</b>	Personnel employed to operate, monitor and control power generation plant.
<b>Organise</b>	Give orderly structure to, make arrangements for or initiate (undertaking).
<b>Others involved in, or affected by, the work</b>	Supervisor, foreperson, other tradespersons, operations personnel and other workers.
<b>Outage</b>	Period of non-operation.
<b>Perform</b>	Carry into effect, execute (operation).
<b>Performance testing</b>	Check of plant output under test conditions.
<b>Permit to work</b>	Written approval to work (in safety and in a clearly defined area).
<b>Plan</b>	Formulated or organised methods by which actions are to

Term	Explanation
	be done in order to achieve a defined objective or outcome.
<b>Plant</b>	1. Apparatus associated with power production. 2. Mobile plant, ie implements and vehicles.
<b>Prerequisite</b>	Specific and general competencies expected to have been achieved prior to being deemed competent in this unit.
<b>Power</b>	Electrical energy.
<b>Process</b>	Controlled course of actions to achieve a required output/outcome.
<b>Production</b>	Produce (electrical energy) in large quantities.
<b>Promote</b>	Help forward, encourage.
<b>Protection devices/schemes</b>	Devices or a number of devices working together, to protect plant and equipment from damage during fault conditions or out of limits operations.
<b>Plug-in printed circuit boards</b>	The placement of individual plug-in printed circuit boards (regardless of whether the connections are plugs or soldered) which do not require any additional setting up/tuning.
<b>Quality</b>	Maintaining a high degree of excellence (meeting requirements/standards).
<b>Receive</b>	Accept delivery of (coal).
<b>Reclaim</b>	Recover (coal) from stockpile.
<b>Record</b>	Piece of recorded information, account or fact preserved in a permanent document or electronically.
<b>Rectification</b>	Converting AC to DC. Process of repairing faults or failures of equipment or systems
<b>Regulatory authority</b>	Any organisation or department with responsibility for establishing and monitoring adherence to procedures, specifications or standards within the Generation sector.
<b>Reliability</b>	May be relied upon (to continue producing). Measure of the probability of failure.
<b>Relocating</b>	Move to a new position.
<b>Request/Work orders</b>	Work generated by schedules, instructions, handover details from previous shift, inspection test plant, defect cards,

Term	Explanation
	danger tags.
<b>Requirements</b>	<p>That to which <i>equipment</i> and procedures and their outcomes must conform – includes statutory obligations and regulations and <i>Standards</i> called-up by legislation or regulations. <i>Requirements</i> may include:</p> <ul style="list-style-type: none"> <li>• codes of practice</li> <li>• job specifications</li> <li>• <i>Standards</i> called-up in specifications</li> <li>• procedures and work instructions</li> <li>• quality assurance systems</li> <li>• manufacturer specifications</li> <li>• design specifications</li> <li>• customer/client requirements and specifications</li> <li>• specified underpinning knowledge (specified in units' Evidence Guides)</li> <li>• National and State guidelines, policies and imperatives relating to the <i>environment</i>.</li> </ul>
<b>Reverse osmosis</b>	Process of removing chemicals from (usually) water by forcing it through a semi permeable membrane using high pressure.
<b>Rigging</b>	Set up of slings etc. to ensure a controlled lift of materials using hoists and/or cranes.
<b>Ringmain</b>	Distribution systems for either water, steam or power supplies in the form of a continuous ring.
<b>Risk</b>	Exposure to danger, hazards, losses etc.
<b>SCADA control</b>	System Control And Data Acquisition system. Screen based remote monitoring and control of a process/acquisition system.
<b>Scaffold</b>	Temporary elevated platform to assist or enable access for inspection or maintenance requirements.
<b>Schedule</b>	Planned output (generation).
<b>Service</b>	Procedural maintenance which would in general be of a routine nature.
<b>Set-up</b>	Specifications set by manufacturer and/or client/user

Term	Explanation
	requirements.
<b>Shift (material)</b>	Change or move from one place to another.
<b>Shunting</b>	<ol style="list-style-type: none"> <li>1. Procedure for warming de-aerator.</li> <li>2. Divert (train) onto a side track to clear the line.</li> </ol>
<b>Site</b>	Location of power generation plant.
<b>Stakeholders</b>	Those who have an influence on activities (power generation).
<b>Standard</b>	Degree of excellence required for a particular purpose. Required quality of work.
<b>Statutory requirements</b>	Standards required by the relevant regulatory or licensing authority, eg Worksafe Australia, SAA Wiring rules.
<b>Steam/Water cycle</b>	Major or main cycle of steam and water through a boiler and/or steam turbine. Includes valves piping, heat exchangers, superheat and reheat elements, boiler drum(s) etc.
<b>Stockpile</b>	Accumulated stock of raw materials (mainly coal).
<b>Strategies</b>	Plans formed to achieve specific outcomes.
<b>String</b>	The placement of aerial conductors/cables in position, including tensioning.
<b>Structure</b>	A pole or tower with associated hardware which supports electrical apparatus.
<b>Switchboard</b>	A combination of cubicles or switches located together that enable the connection or disconnection of electrical circuits.
<b>Switchgear</b>	Apparatus designed to make or break electrical connections.
<b>Systems</b>	Systems in the generation industry means the interaction between a number of elements requiring consideration of the total effect of the parts, rather than a concentration on any single part, and in respect of which actions and responses that are needed, may require analytical skills and techniques.
<b>Tasks</b>	Single items of work.

<b>Term</b>	<b>Explanation</b>
<b>Team</b>	People working together in a cooperative/collaborative manner.
<b>Technical inspection</b>	Examine closely, utilising specific criteria relevant to the apparatus concerned.
<b>Test</b>	Testing and/or functioning (operating) an assembly, component or part to make sure that it agrees with the applicable specifications. In this definition testing provides a way in which adjustment and/or troubleshooting/diagnosis can occur.
<b>Test and commission</b>	The checking of individual equipment/components for correct operation and the placement into service of the equipment or system.
<b>Test (operational)</b>	Operate under a strictly controlled manner to check/determine the condition of an item of plant. This may include a complete system, a complete item of plant (i.e. boiler fan) or an individual component.
<b>Tippling</b>	Discharging of coal (or other material) from a railway wagon.
<b>Tools</b>	General hand tools, portable electric tools and specialist tools.
<b>Transfer (material)</b>	Move or relocate.
<b>Transformers</b>	Apparatus for reducing or increasing voltage in an AC system.
<b>Transport plant and equipment</b>	Moving mobile plant and associated equipment.
<b>Tune</b>	Correcting or altering a system, circuit, components or indicators to provide a specified outcome or condition.
<b>Turbine</b>	Wheel or rotor driven by the impact or reaction of steam or water (generic). Main plant item in thermal or hydro power production consisting of a number of stages. May include a number of turbines connected in tandem.
<b>Undertake</b>	Be committed to perform, or take responsibility for, work, testing etc.
<b>Unit of Competency</b>	See Competency Standard Unit

<b>Term</b>	<b>Explanation</b>
<b>Waste</b>	Substances of no further use in the power production process, ie ash.
<b>Water quality control system</b>	System(s) utilised to continually monitor and adjust the quality of water used in the power generation process.
<b>Water treatment</b>	The treatment processes used to condition raw water to make it suitable for use in the power generation processes.
<b>Wind generator</b>	Device to convert air currents into electrical energy.
<b>Work completion details</b>	Time sheets, job cards, plans and records.
<b>Workplace procedures</b>	See Enterprise procedures.



**OHS SUPPORT MATERIALS FOR DEVELOPERS OF  
COMPETENCIES AND LEARNING RESOURCES**

**Glossary of OHS Terms**

## Terms related directly to Occupational Health and Safety

This Glossary of Occupational Health and Safety (OHS) Terms has been developed to assist competency developers and writers, reviewers of training packages and those developing any training specification or learning materials for the Vocational Education and Training environment.

In Australia we consider that the rate of workplace fatality, injury and ill-health is far too high. To reduce this toll we need to make some changes in the workplace and this requires training to enable business and workers to effectively manage safety. We must get OHS right in the competency so that the resultant learning contributes to improving the capacity of those in the workplace to manage safety. This applies not only to the ‘designated’ OHS units but to the integration of OHS, as appropriate, into all competencies, learning programs and learning resources.

The competency TAADES505A *Research and develop competency standards* specifies the outcomes and the knowledge and skills required to research and develop documents which outline competency requirements for a particular job function, work process, work role or specific vocational outcome. This competency cites four phases in developing a competency:

1. Research the competency area
2. Formulate competency specifications
3. Validate competency specifications
4. Finalise competency specifications.

OHS is a critical aspect of research into the competency area, and also an important aspect of work performance to be integrated within a competency.

Like a many technical areas, OHS has, to some extent, is its own language. OHS is ‘owned’ by many people as it impacts on all of us, however key words and terms are not always used in a consistent manner and this can lead to confusion. To maximise the effectiveness of our training and education we need to ensure that our use of the OHS language is as consistent and clear as possible.

This glossary is not intended as a definitive dictionary of OHS terms but is designed to be used in the second phase of competency development, formulate the competency specifications. It is also an invaluable tool for those involved in the design and development of learning resources.

Further information on OHS hazards, practical guidance material, standards and codes of practice is available at the National Occupational Health and Safety Commission website at [www.nohsc.gov.au](http://www.nohsc.gov.au)

The glossary is intended to be an evolving and dynamic document and those wishing to comment on the terms or suggest additions or modifications should email the Team Leader of the OHS Skills Development Team at NOHSC.

## Glossary of OHS Terms

NOHSC Term	Explanation
<b>Accident</b>	A term that is now considered out of date. Preferred term is <i>incident</i> .
<b>Accountability</b>	The process by which a person with OHS responsibilities is answerable to a higher authority.
<b>Action level</b>	The level at which a risk is considered to be unacceptable and action is required to reduce the level of risk. May be specific such as a noise level at which hearing protection must be worn, a concentration of chemical or more generic.
<b>(OHS) Action plans</b>	Documented plans developed within the workplace to implement OHS management, which include allocated responsibilities and time frames.
<b>Administrative controls</b>	Management practices that aim to control employees' exposure to specific hazards, and generally improve health and safety – examples include the use of job rotation, job enlargement
<b>ALARA (As Low As Reasonably Achievable)</b>	A basic concept where risks are kept as low as is reasonably achievable. ALARA is determined by reference to established codes and standards and consultation with groups impacted by the decision outcomes including those exposed to the risk.
<b>Anthropometry</b>	The science dealing with the comparative measurement of the size and proportions of the human body, the range of movement of limbs, as used in ergonomics.
<b>(OHS) Audit</b>	A systematic examination against an agreed benchmark of the approach to managing safety to evaluate an organisation's arrangements for identifying hazards, assessing and controlling risks, and monitoring and improving the effectiveness of the management of OHS and compliance. (Note a workplace inspection is NOT an audit.)
<b>Audit tools</b>	<p>The instruments for collecting evidence and conducting the analysis and evaluation (they are not the same as the audit criteria or benchmark), they may be:</p> <ul style="list-style-type: none"> <li>• developed specifically for the purpose</li> <li>• adapted from existing tools</li> <li>• purchased or accessed from existing tools</li> <li>• and include:</li> <li>• performance checklists</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• sets of questions to be asked</li> <li>• descriptions of required characteristics to be checked</li> <li>• limitations for and instructions for use</li> </ul>
<b>Authorisation of permit</b>	Signing of permit by competent person.
<b>Biomechanics</b>	The application of mechanics (forces and motion) to analyse body movement and the stresses involved in body posture during movement.
<b>Causative event</b>	Key event that resulted in the particular outcome(s) of injury or damage.
<b>Circumstance</b>	Short-term situation that is relatively unusual, such as a storm or when a key person is absent.
<b>Certification</b>	Refer <i>operator certification</i> .
<b>Common law</b>	Law that is derived from the English legal system and has evolved through judicial decision and practice (case law) that establishes and follows precedent. Note difference to ‘statute law’.
<b>Condition</b>	Permanent situation such as type of equipment, work practice, design of work environment (often different to detect or identify) that may contribute to risk.
<b>Consequence</b>	The injury or damage outcome of an event, which may be expressed quantitatively or qualitatively, there may be a range of possible outcomes for a specific event or scenario.
<b>Confined space</b> References <ul style="list-style-type: none"> <li>• AS/NZS 2865:2001 <i>Safe working in a confined space</i></li> <li>• Handbook – <i>HB 213:2003 Guidelines for safe working in a confined space</i></li> </ul>	An enclosed or partially enclosed space which: <ul style="list-style-type: none"> <li>• is at atmospheric pressure during occupancy</li> <li>• is not intended or designed primarily as a place of work, and is liable at any time to –</li> <li>• have an atmosphere which contains potentially harmful levels of contaminant</li> <li>• not have a safe oxygen level or</li> <li>• cause engulfment, and</li> <li>• may have restricted means for entry and exit.</li> </ul> A confined space is determined in part by the hazards associated with a defined set of circumstances (restricted entry or hazardous atmosphere, risk of engulfment) and not just with work performed in a restricted space. Examples include but may not be limited to:

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• storage tanks, tank cars, process vessels, boilers, pressure vessels, silos and other tank-like compartments</li> <li>• open-topped spaces such as pits or degreasers</li> <li>• pipes, sewers, shafts, ducts and similar structures</li> <li>• shipboard spaces entered through a small hatchway or access point, cargo tanks, cellular double bottom tanks, duct keels, ballast and oil tanks and void spaces (but not including dry cargo holds).</li> </ul> <p>A person is deemed to have entered a confined space when his/her head (ie the breathing zone) or upper part of the body is within the boundary of the confined space. (Note that inserting an arm for atmospheric testing is not considered an entry to a confined space).</p>
<p><b>Consultative arrangements</b></p>	<p>State and Territory OHS legislation specifies obligations for workplace consultation. The workplace arrangements to meet these obligations may include:</p> <ul style="list-style-type: none"> <li>• OHS and other consultative and planning committees</li> <li>• health and safety and other employee representatives</li> <li>• employee and supervisor involvement in OHS activities such as inspections and audits</li> <li>• procedures for reporting hazards, and raising and addressing OHS issues</li> <li>• employee and workgroup meetings.</li> </ul> <p>Factors that should be considered when developing consultative arrangements include:</p> <ul style="list-style-type: none"> <li>• language</li> <li>• shift work and rostering arrangements</li> <li>• timing of information and data provision</li> <li>• literacy and numeracy levels</li> <li>• workers with special needs</li> <li>• workplace organisational structures, eg size of organisation, geographic, hierarchical</li> <li>• cultural diversity</li> <li>• management approach</li> <li>• workplace culture and approach to OHS by managers, supervisors and employees.</li> </ul>

NOHSC Term	Explanation
<p><b>Controls</b></p>	<p>The devices and methods of controlling the effect of the hazard so that the risk of injury is minimised. The ‘quality’ of the control is the level and reliability of the control compared with the level of risk. The quality of the controls is determined by:</p> <ul style="list-style-type: none"> <li>• the best available technology or approach should be applied when the most probable outcome is death or serious injury</li> <li>• the best practical technology or approach may be applied where the most probable outcome is less serious</li> </ul> <p>Refer also <i>Hierarchy of control</i>.</p> <p>Workplace factors that impact on the controls selected and the implementation include:</p> <ul style="list-style-type: none"> <li>• language</li> <li>• shift work and rostering arrangements</li> <li>• literacy and numeracy</li> <li>• workplace organisational structures (e.g. geographic, hierarchical)</li> <li>• cultural diversity</li> <li>• training required</li> <li>• workplace culture related to OHS, including commitment by managers and supervisors and compliance with procedures and training.</li> </ul>
<p><b>Control measures</b></p>	<p>Devices, systems (including work methods) or approaches that reduce exposure to workplace hazards</p>
<p><b>Crisis management plan</b></p> <p>The term <i>emergency management</i> may also apply but <i>crisis management</i> infers a more holistic approach encompassing the full range of business affairs.</p>	<p>A flexible document that can cope with a broad range of crisis types and:</p> <ul style="list-style-type: none"> <li>• is approved at the highest levels of the organisation</li> <li>• focuses on management control</li> <li>• identifies responsibilities for decision making</li> <li>• details communication processes and psychological support</li> <li>• addresses arrangements with any contractors or shared tenancy</li> <li>• integrates the emergency response plans as well as recovery</li> <li>• incorporates dealing with external agencies and support</li> <li>• addresses planning for recovery before crisis occurs.</li> </ul> <p>Documentation for a crisis management plan may include:</p>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• policy</li> <li>• emergency response structure</li> <li>• initial response instructions for various roles/areas, responsibility and authority of individual roles</li> <li>• warning systems</li> <li>• training requirements</li> <li>• resource inventory for response and recovery</li> <li>• program review and monitoring processes</li> <li>• risk management documentation, such as team lists, communications strategies, identification of issues, risk assessments/evaluations, vulnerability profiles, risk registers and treatment strategies.</li> </ul>
<b>Dangerous Goods (DG)</b>	<p>Those gases, liquids and solids identified and classified under the internationally agreed system which is followed in Australia and that are subject of so called ‘dangerous goods’ standards and legislation.</p> <p>The objective of the Dangerous Goods legislation is to control the storage, handling and transport of DGs to protect the safety of workers, the public, property and the environment. While dangerous goods may also be hazardous the terms should not be confused.</p>
<b>Dangerous parts of plant</b>	<p>Potential contact or entrapment points to which the operator may be exposed during:</p> <ul style="list-style-type: none"> <li>• operation</li> <li>• examination</li> <li>• lubrication</li> <li>• adjustment</li> <li>• maintenance</li> </ul>
<b>Design</b>	<p>The process of bringing together innovation, aesthetics, and functionality to plan and create a product, process or system to meet the artistic, industrial or performance requirement of an individual or group. The Design Process involves a series of activities where an idea is conceived, shaped, developed, produced and then acted upon to produce a design product. It also includes any subsequent alteration of a design product (redesign or retrofit).</p>
<b>Design process</b>	<p>The stages of the design process include:</p> <ul style="list-style-type: none"> <li>• the concept design phase. This phase includes concept design, research and development, feasibility and risk management</li> </ul>

NOHSC Term	Explanation
	<p>(including OHS risks). In this phase preliminary design options are considered and assessed against product specifications to determine the best preliminary design</p> <ul style="list-style-type: none"> <li>• the detailed design phase. In this phase the selected design is developed to its final state. This includes research and development, feasibility studies, concept and detail design, technical and functional specifications, plans and drawings, operational systems, construct/manufacture options and detailed quantities, cost and risk analysis (including analysis of OHS risks).</li> </ul>
<b>Designed-product</b>	<p>The item to be designed, including a built environment, structure, an item of plant or equipment, chemical, work system or process; or any other physical attribute or system associated with either the work or its interface with people.</p>
<b>Duty of care</b>	<p>Arises from common law but is enshrined in OHS statute law and that places into a legal form a moral duty to anticipate possible causes of injury and illness and to do everything reasonably practicable to remove or minimise these possible causes of harm.</p> <p>The key factors relating to duty of care are that:</p> <ul style="list-style-type: none"> <li>• duty of care applies wherever there is special relationship (employer – employee, employer – contractor, supervisor – work team member, tradesperson – apprentice)</li> <li>• duty of care applies to all circumstances of the relationship</li> <li>• individual duty of care cannot be delegated (but roles and functions may be delegated)</li> <li>• applies personally to individuals</li> <li>• applies to all risks that are foreseeable and preventable</li> <li>• includes the concept of <i>reasonable</i>.</li> </ul>
<b>Elements of systematic approaches to managing OHS</b> <i>including OHSMSs</i>	<p>A list of key requirements or major principles that are combined in a methodical and ordered manner to minimise the risk of injury or ill health in the workplace; and may include processes of OHS planning, allocation of resources, communication and consultation, hazard management, record keeping and reporting, training and competency, and review and evaluation for ongoing improvement of OHS.</p>
<b>Emergency</b>	<p>Events such as:</p> <ul style="list-style-type: none"> <li>• serious injury events</li> <li>• emergencies requiring evacuation</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• fires and explosions</li> <li>• hazardous substance and chemical spills</li> <li>• explosion and bomb alerts</li> <li>• security emergencies, such as armed robberies, intruders and disturbed persons</li> <li>• internal emergencies, such as loss of power or water supply and structural collapse</li> <li>• external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organisation.</li> </ul> <p>May also be referred to <i>hazardous event</i>.</p>
<b>Emergency agency</b>	Includes fire, police, ambulance, relevant government departments, hazardous materials response teams (HAZMAT) and OHS authorities.
<b>Emergency control organisation (ECO) is:</b>	Structured group within the organisation that includes roles such as emergency controller, communications recorder, media liaison and employee support.
<b>Emergency equipment</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• first aid equipment</li> <li>• eye wash shower or portable eye washes</li> <li>• fire extinguishers and equipment</li> <li>• communication equipment</li> <li>• evacuation alarms</li> <li>• evacuation equipment, especially that for disabled persons</li> <li>• torches</li> <li>• clothing items such as coloured hats and vests.</li> </ul>
<b>Emergency stops and warning devices</b>	<p>Are fitted to plant and equipment that have a risk of entrapment or other hazard and must be:</p> <p>prominently, clearly and durably marked</p> <p>coloured red (push buttons, bars or handles)</p> <p>unable to be affected by electrical or electronic circuit malfunction</p> <p>fitted where risk assessment identifies a need.</p>
<b>Enforcement</b>	<p>Processes and instruments available to the OHS regulator under legislation may include:</p> <ul style="list-style-type: none"> <li>• prosecution</li> </ul>

<b>NOHSC Term</b>	<b>Explanation</b>
	<ul style="list-style-type: none"> <li>• prohibition notices</li> <li>• improvement notices</li> <li>• on-the-spot fines</li> <li>• provisional improvement notices.</li> </ul>
<b>Epidemiology</b>	The study of the distribution and determinants of disease within human populations. Patterns of injury or illness in groups of people are studied to determine causes, identify groups at risk and to identify and evaluate methods of treatment and prevention.
<b>Ergonomics</b>	The study of the relationship between people, the equipment they use and their physical and social work environment.
<b>Ergonomic interventions</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• design of tools</li> <li>• design of workplaces</li> <li>• design of products</li> <li>• design of equipment</li> <li>• design of work systems, processes or organisation including work flow, planning and control</li> <li>• job design</li> <li>• development of new decision making processes</li> <li>• new forms and organisations of work</li> </ul>
<b>Ergonomic tools and databases</b>	<p>May include:</p> <ul style="list-style-type: none"> <li>• engineering models</li> <li>• Australian and International Standards</li> <li>• Australian and International anthropometric databases</li> </ul>
<b>Explosive substance</b>	Substance that explodes if it comes into contact with heat, flame, an ignition source or incompatible substance.
<b>Fail-to-safe</b>	Design feature of equipment that ensures if there is a failure or defect in the product, or another factor such as loss of power, then the product is left in a safe condition.
<b>Functional areas and management systems</b>	<p>Other than OHS but that impact on the management of OHS may include:</p> <ul style="list-style-type: none"> <li>• strategic planning</li> <li>• purchasing, procurement and contracting</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• logistics</li> <li>• HR, IR and personnel management, including payroll</li> <li>• engineering and maintenance</li> <li>• information, data and records management</li> <li>• finance and auditing</li> <li>• environmental management</li> <li>• quality management.</li> </ul>
<b>Guarding</b>	<p>Devices fitted to machinery to separate the operator from dangerous parts of the machine. Devices may include:</p> <ul style="list-style-type: none"> <li>• permanently fixed physical barriers where no access of any part of a person is required</li> <li>• interlocking physical barriers where access to dangerous areas is required during operation</li> <li>• physical barriers securely fixed by means of fasteners or devices</li> <li>• presence-sensing safeguarding systems.</li> </ul>
<b>Hazard</b>	<p>A source or a situation with a potential for harm in terms of human injury or ill-health, damage to property, damage to the environment, or a combination of these.</p>
<b>Hazards of long latency</b>	<p>Conditions, illnesses and other health risks that result from longer term exposure to specific triggers such as chemicals, noise, radiation and psychosocial factors.</p>
<b>Hazards of low frequency/high consequence</b>	<p>High impact events that occur rarely such as explosions, fires and building collapses but may result in very serious injury, death or multiple death situations.</p>
<b>Hazard identification</b>	<p>The process of identifying sources of harm. Hazard identification may be required:</p> <ul style="list-style-type: none"> <li>• at design or pre purchase of buildings, equipment and materials</li> <li>• at commissioning or pre-implementation of new processes or practices</li> <li>• before new forms of work and organisation of work are implemented</li> <li>• before changes are made to workplace, equipment, work processes or work arrangements</li> <li>• as part of planning major tasks or activities, such as equipment shutdowns</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• following an incident report</li> <li>• when new knowledge becomes available</li> <li>• at regular intervals during normal operations</li> <li>• prior to disposal of equipment, buildings or materials.</li> </ul> <p>Different methods may be used to identify hazards, including:</p> <ul style="list-style-type: none"> <li>• observation</li> <li>• consultation with workers, clients or other users</li> <li>• trial of models or prototypes</li> <li>• review of technical standards and other information sources</li> <li>• monitoring and measurement.</li> </ul>
<b>Hazard identification tools and processes</b>	<p>These include:</p> <ul style="list-style-type: none"> <li>• analysis of incident investigations</li> <li>• analysis of incident, injury and claims statistics</li> <li>• workplace inspections</li> <li>• job safety analysis (JSA)</li> <li>• audits</li> <li>• cause and effect diagrams</li> <li>• surveys</li> <li>• review of research and industry literature.</li> </ul>
<b>Hazardous event</b>	<p>Includes incidents with the potential to seriously harm life, health, property, the environment or a combination. May also be referred to as <i>emergencies</i>.</p>
<b>Hazardous substance</b>	<p>A substance that is listed on the National Commission's List of Designated Hazardous Substances (NOHSC:10005) or has been classified as a hazardous substance by the manufacturer or importer in accordance with the National Commission's Approved Criteria for Classifying Hazardous Substances (NOHSC:1008).</p>
<b>Hazardous substance register</b>	<p>Listing of all the hazardous substances that are used or produced in a workplace together with a current Material Safety Data Sheet for each substance. May also contain risk assessments for individual hazardous substances.</p>
<b>HAZCHEM</b>	<p>An initial response emergency action code that provides information vital to emergency services to enable them to stabilise</p>

NOHSC Term	Explanation
	the incident scene during the early stages of a HAZMAT incident. The Code is displayed on emergency information panels on transport vehicles and on signs on buildings. HAZCHEM codes are assigned to chemicals on the basis of their flammability, toxicity, reactivity and other relevant chemical and physical properties.
<b>HAZMAT</b>	A contraction of the words <i>hazardous materials</i> and may be used in a range of circumstances including HAZMAT emergency response units, HAZMAT emergency response equipment and HAZMAT registers of hazardous substances.
<b>HAZOP (Hazard and Operability Study)</b>	An advanced risk analysis technique that involves a systematic review of a process to determine risks and risk minimisation strategies.
<b>Health and safety representative</b>	An employee, elected by the workgroup, who represents the OHS interests of the people with whom they work. The function is carried out in addition to the normal work role. Processes for election of health and safety representatives, their role and rights are specified in state and territory legislation.
<b>Health promotion</b>	The promotion of health, especially as a workplace program, designed to improve and enhance employee health undertaken as a complementary activity to the prevention of work-related injury and disease.  Also called <i>wellness</i> .
<b>Health surveillance</b>	Monitoring or checking individuals for the purpose of identifying changes due to exposure to hazards in the workplace. May include biological monitoring.
<b>Hierarchy of control</b>	The priority order in which hazard and risk controls should be considered with the eventual outcome often being a combination of measures. The prime emphasis is on <i>elimination</i> , and where this is not practicable, <i>minimisation of risk</i> by: <ul style="list-style-type: none"> <li>• substitution</li> <li>• isolating the hazard from personnel</li> <li>• engineering controls</li> <li>• administrative controls, eg procedures, training</li> <li>• personal protective equipment (PPE)</li> </ul>
<b>Hot work</b>	Involves using equipment that generates heat, sparks, flames or any other sources of ignition in an atmosphere that may be

NOHSC Term	Explanation
	<p>flammable. It includes work with welders and cutters, including oxygen cutters, power tools, grinding, mobile phones.</p> <p>Hot work can also include breaking into ‘live’ equipment or performing work on live equipment that has the potential to release its contents, eg hot tap in chemical plants.</p>
<b>Housekeeping</b>	<p>Describes workplace and personal routines designed to improve hygiene and safety, for example, cleaning up spills and keeping walkways, exits and traffic areas clear.</p>
<b>Incident</b>	<p>An event that has caused or has the potential for injury, ill-health or damage. (<i>Incident</i> is the preferred term rather than <i>accident</i>)</p>
<b>(Sources of OHS) Information:</b>	<p>May be internal, including:</p> <ul style="list-style-type: none"> <li>• hazard, incident and investigation reports</li> <li>• workplace inspections</li> <li>• incident investigations</li> <li>• minutes of meetings</li> <li>• Job Safety Analyses (JSA’s) and risk assessments</li> <li>• organisational data such as insurance records, enforcement notices and actions, workers compensation data, OHS performance data</li> <li>• reports and audits</li> <li>• material safety data sheets (MSDSs) and registers</li> <li>• employees handbooks, including questionnaire results</li> <li>• OHS advisors</li> <li>• manufacturer manuals and specifications.</li> </ul>
	<p>Or external, including:</p> <ul style="list-style-type: none"> <li>• regulatory bodies and OHS Acts regulations, codes and guidance material</li> <li>• other relevant legislation</li> <li>• National Occupational Health and Safety Commission (NOHSC) and Australian Bureau of Statistics</li> <li>• databases such as national and State injury data and NICNAS (National Industrial Chemicals Notification and Assessment Scheme)</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• OHS specialists and consultants</li> <li>• newspapers and journals, trade/industry publications</li> <li>• Internet sites</li> <li>• industry networks and associations including unions and employer groups</li> <li>• OHS professional bodies</li> <li>• research information</li> </ul>
<p><b>Isolation</b></p>	<p>A safety device system that includes devices such as isolating switches, locks, safety bars, shields, full pressure blanks, spectacle blanks to lock controls, especially moving parts, equipment, systems or devices with stored energy, to an ‘off’ position while a worker is in a vulnerable position such as carrying out maintenance on rotating equipment, and electrical and hydraulic systems.</p> <p>Isolation systems generally use locking switches that need keys to open the lock and are used in conjunction with a danger tag system that promotes greater safety consciousness amongst the workforce for all situations in which danger to persons could arise from:</p> <ul style="list-style-type: none"> <li>• the operation of machinery, plant or equipment</li> <li>• the flow of steam, electricity, gases or liquids</li> <li>• the use of faulty or unsafe plant and equipment</li> <li>• include multiple locking systems and involve written authorisation by a competent person</li> </ul> <p>Also called <i>lock-out</i> and <i>tag-out</i>.</p>
<p><b>Job Safety Analysis (JSA)</b></p>	<p>Process of examining all aspects of a task to identify hazards and conditions with a potential for injury or ill health with the objective of developing risk controls including written job instructions.</p>
<p><b>Legislation relevant to OHS</b></p>	<p>Includes Commonwealth and relevant State/Territory OHS specific acts and regulations as well as:</p> <ul style="list-style-type: none"> <li>• workers compensation</li> <li>• privacy legislation</li> <li>• contract law</li> <li>• trade practices</li> <li>• criminal law</li> <li>• common law</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• industrial relations law</li> <li>• equal employment opportunity and anti-discrimination law.</li> </ul>
<b>Life-cycle</b>	<p>All phases in the life of a product. Specific phases depend on the type of product but may include:</p> <ul style="list-style-type: none"> <li>• design</li> <li>• development</li> <li>• manufacture, construction, assembly</li> <li>• import</li> <li>• supply, distribution</li> <li>• sale, hire, lease</li> <li>• storage</li> <li>• transport</li> <li>• installation, erection</li> <li>• commissioning,</li> <li>• use, operation,</li> <li>• consumption,</li> <li>• maintenance, servicing, cleaning, adjustment, inspection, repair, modification, refurbishment, renovation, recycling</li> <li>• resale</li> <li>• decommissioning, dismantling, demolition, discontinuance, disposal.</li> </ul>
<b>Likelihood</b>	The likelihood of the occurrence of the consequence, not the likelihood of the hazard or the particular scenario.
<b>Locked out</b>	<p>Equipment, which is not to be operated for any reason, may be padlocked, or otherwise prevented from operation using a keyed lock. A lockout may be accompanied by a tag out, or a lock out system may incorporate a tag.</p> <p>Lockout means the isolation by a mechanical device, generally a lock, which, when applied at the source, physically prevents the control to any electrical or mechanical equipment being turned on.</p> <p>Refer also to <i>Isolation</i>.</p>
<b>Manual handling</b>	The use of force applied by a person to lift, move, carry, push, pull or otherwise move or restrain an animate or inanimate object.
<b>Material Safety Data</b>	Document describing the properties and hazards of a material or substance including statements about its chemical and physical

<b>NOHSC Term</b>	<b>Explanation</b>
<b>Sheet (MSDS)</b>	properties, health hazards, precautions for use and safe handling instructions. All manufacturers and suppliers of chemicals are obliged to produce an MSDS for each hazardous chemical.
<b>Monitoring</b>	Involves the use of valid and suitable techniques to estimate the exposure of employees to a hazard.
<b>Musculoskeletal disorder (MSD)</b>	An injury, illness or disease that arises in whole or part from manual handling in the workplace, whether occurring suddenly or over a prolonged period of time. (Does not include injuries caused by crushing, entrapment or cut resulting primarily from the mechanical operation of plant.
<b>Occupational Overuse Syndrome (OOS)</b>	Previously called RSI and refers to arrange of conditions characterised by persistent discomfort and pain in and around joints and associated with repeated movement of the joint. Recent state and territory legislation tends to group these conditions with those arising from manual handling as Musculoskeletal Disorders.
<b>OHS inspection</b>	The process of physically examining and evaluating the extent to which hazards and risks exist, and/or particular OHS requirements, procedures or standards are being met.  Refer also to <i>workplace inspection</i> .
<b>OHS specialists</b>	Include: <ul style="list-style-type: none"> <li>• safety professionals</li> <li>• ergonomists</li> <li>• occupational hygienists</li> <li>• safety engineers</li> <li>• injury management advisors</li> <li>• health professionals.</li> </ul>
<b>Operator certification</b>	The process by which a certificate to use or operate industrial equipment is issued by a certifying authority.
<b>OHS management system (OHSMS)</b>	That part of the organisation’s overall management system that covers developing, implementing, reviewing and maintaining the activities for managing OHS. It is NOT a standard, a commercial package or folders on the shelf; however it may involve use of OHS management systems developed in the workplace to meet the OHS situation in that particular workplace.  Also referred to in broader context as systematic approaches to managing OHS.
<b>Operational controls</b>	Should:

NOHSC Term	Explanation
<p><b>for plant and equipment</b></p>	<ul style="list-style-type: none"> <li>• be suitability identified</li> <li>• have nature and function clearly indicated</li> <li>• be readily and conveniently located</li> <li>• be guarded to prevent unintentional activation</li> <li>• be capable of locking in ‘off’ position to enable disconnection of all motive power and forces</li> <li>• be of ‘fail safe’ type.</li> </ul>
<p><b>Participative arrangements</b> May also be referred to as <i>consultative arrangements</i>, however <i>participation</i> implies a higher level of involvement.</p>	<p>Are those arrangements that inform employees and other stakeholders of OHS matters, seek their input and offer opportunity for stakeholders to participate in decisions that may impact on their OHS.</p>
<p><b>Permit to work</b></p>	<p>A written authority document such as hot work and confined space entry that:</p> <ul style="list-style-type: none"> <li>• includes approval to undertake work and activities including tests, measurements and monitoring</li> <li>• is authorised by a responsible or designated person directly in control of the work</li> <li>• certifies appropriate precautions and controls to be followed</li> <li>• incorporates checklists, conditions and actions such as the frequency and duration of the work and atmospheric tests</li> <li>• follows recognised industry standard recording practices.</li> </ul>
<p><b>Plant</b></p>	<p>As defined in National Standard for Plant includes:</p> <ul style="list-style-type: none"> <li>• machinery, equipment (including scaffolding), appliance, implement or tool and any other component, fitting or accessory</li> <li>• fixed and or specified plant as cited in commonwealth, state and territory OHS legislation</li> <li>• mobile plant and load shifting equipment</li> <li>• pressure equipment such as boilers, pressure vessels and pressure piping</li> <li>• electrical installation and plant such as wiring, accessories, fittings, consuming devices, control and protective gear,</li> </ul>

NOHSC Term	Explanation
	converters and generators.
<b>Plant Registration</b>	The administrative process by which a certifying authority or state OHS regulator requires an organisation or industry to register plant, machinery and equipment.
<b>Personal protective equipment (PPE)</b>	<p>Equipment designed to be worn by a person to provide protection from hazards, and may include:</p> <ul style="list-style-type: none"> <li>• head protection</li> <li>• face and eye protection</li> <li>• respiratory protection</li> <li>• hearing protection</li> <li>• hand protection</li> <li>• clothing and footwear</li> </ul> <p>Personal protective equipment is considered the least satisfactory control measure.</p>
<b>Policies and procedures</b>	<p>Relevant to OHS include:</p> <ul style="list-style-type: none"> <li>• policies and procedures underpinning OHS, including those for hazard and incident reporting, OHS communication, consultation, issue resolution and risk management</li> <li>• quality system documentation</li> <li>• purchasing and contracting procedures</li> <li>• documents describing how tasks, projects, inspections, jobs and processes are to be undertaken</li> <li>• standard operating procedures, work instructions</li> <li>• job or batch sheets, recipes</li> <li>• operators manuals</li> <li>• employee and contractor handbooks</li> <li>• job/task statements.</li> </ul>
<b>Positive performance indicators</b>	Focus on assessing how successfully a workplace is performing through measuring OHS processes.
<b>(OHS) Records</b>	<p>Requirements for OHS record keeping may be defined in:</p> <ul style="list-style-type: none"> <li>• OHS legislation and regulations governing reporting of incidents and maintenance of records related to specific hazards, including chemical registers and material safety data sheets (MSDSs)</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• privacy legislation</li> <li>• organisational procedures</li> <li>• OHS records may include: <ul style="list-style-type: none"> <li>• hazard and incident reports, first aid records</li> <li>• risk assessments</li> <li>• hazardous substances and dangerous good registers, MSDSs</li> <li>• risk registers</li> <li>• OHS audit and inspection reports</li> <li>• maintenance and testing records</li> <li>• OHS training records</li> <li>• outcomes of health surveillance and environmental monitoring</li> <li>• workers compensation claims and return to work records.</li> </ul> </li> </ul> <p>OHS records must be stored taking account of:</p> <ul style="list-style-type: none"> <li>• privacy</li> <li>• confidentiality</li> <li>• enabling access to personal records, within legislative requirements</li> <li>• commercial in confidence issues as appropriate.</li> </ul>
<b>(OHS) Reporting requirements</b>	Under legislation include serious injury and serious incident reporting to OHS authorities.
<b>(OHS) Responsibilities</b>	<p>Those with legislated OHS responsibilities include:</p> <ul style="list-style-type: none"> <li>• company director</li> <li>• manager</li> <li>• supervisors</li> <li>• OHS representatives</li> <li>• employees and contractors</li> <li>• designers, manufacturers, installers, suppliers.</li> </ul>
<b>Residual risk</b>	Risk that is unable to be designed out of a product or process.
<b>Risk</b> Refer also to <i>Consequence</i> and <i>Likelihood</i> .	The chance of something occurring that will result in injury or damage. It is measured in terms of consequences (injury or damage) and likelihood of the consequence.
<b>Risk analysis</b>	Identifying factors influencing risk and the range of potential

NOHSC Term	Explanation
	<p>consequences</p> <p>Analysing the:</p> <ul style="list-style-type: none"> <li>• risk to effectiveness of existing controls</li> <li>• likelihood of each consequence considering exposure and hazard level</li> </ul> <p>Combining these in some way to obtain a level of risk.</p> <p>Factors influencing risk may be associated with:</p> <ul style="list-style-type: none"> <li>• equipment</li> <li>• work environment</li> <li>• work organisation</li> <li>• task</li> <li>• the individual/operator</li> <li>• frequency and duration of exposure</li> <li>• number of people exposed/involved.</li> </ul>
<p><b>Risk assessment</b></p> <p>Refer also to <i>Risk Analysis</i> and <i>Risk evaluation</i>.</p>	<p>Risk assessment is a two-step process that involves risk analysis and risk evaluation.</p> <p>Risk assessment as required under various OHS legislation does not necessarily require this second step of evaluation.</p>
<p><b>Risk evaluation</b></p>	<p>Comparison of risk with pre-established criteria for tolerance (or as low as reasonably achievable) and the subsequent ranking of risks requiring control. This activity will usually be carried out by or in conjunction with others with advanced OHS skills and knowledge.</p>
<p><b>Risk management</b></p>	<p>The whole systematic process directed towards identifying hazards, assessing the risk and developing controls to minimise the risk and monitoring the effectiveness of the controls (and taking further action as required).</p>
<p><b>Risk ranking</b></p>	<p>A process of rating risks according to their severity and likelihood. Common systems are based on matrices or nomograms but are usually highly subjective.</p>
<p><b>Risk register</b></p> <p>May also be referred to as <i>Hazard Register</i>.</p>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• a list of hazards, their location and people exposed</li> <li>• a range of possible scenarios or circumstances under which these hazards may cause injury or damage</li> <li>• the results of the risk assessment, and may also include;</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• possible control measures and dates for implementation.</li> </ul>
<b>Safe Design</b>	<p>A design process that generates options to eliminate hazards, or minimise potential risk to health and safety of those who make the product and those that use it by involving decision makers and considering OHS risks throughout the life cycle of the designed product.</p>
<b>Stakeholders</b>	<p>In workplace OHS include:</p> <ul style="list-style-type: none"> <li>• managers</li> <li>• supervisors</li> <li>• health and safety and other employee representatives</li> <li>• OHS committees</li> <li>• employees and contractors</li> <li>• the community.</li> </ul>
<b>Standards</b>	<p>Relevant to OHS include:</p> <ul style="list-style-type: none"> <li>• OHS regulations and standards developed by OHS regulators</li> <li>• national standards (NOHSC)</li> <li>• Australian standards</li> <li>• International national standards</li> <li>• industry standards</li> <li>• codes of practice</li> <li>• exposure standards</li> <li>• guidance notes.</li> </ul>
<b>Statute Law</b>	<p>Law created by legislation passed by government (acts and regulations) as distinct from common law.</p>
<b>(OHS) plan</b>	<p>A document that:</p> <ul style="list-style-type: none"> <li>• is usually developed annually but may be developed for a shorter or longer period</li> <li>• reviewed regularly</li> <li>• has OHS performance indicators (ie objectives and targets that are achievable and practical) reflecting systematic approaches to managing OHS.</li> </ul>
<b>System of work</b>	<p>The overall process of work including:</p> <ul style="list-style-type: none"> <li>• method by which the work is carried out</li> </ul>

NOHSC Term	Explanation
	<ul style="list-style-type: none"> <li>• organisation of the work</li> <li>• selection and maintenance of tools and equipment</li> <li>• supervision and training</li> <li>• selection of workers</li> <li>• allocation of tasks and responsibilities.</li> </ul>
<p><b>Systemic approach to managing OHS</b></p>	<p>Requires:</p> <ul style="list-style-type: none"> <li>• comprehensive processes that are combined in a methodical and ordered manner to minimise the risk of injury or ill health in the workplace</li> <li>• processes of planning, allocation of resources, communication and consultation, hazard management, record keeping and reporting, training and competency, and review and evaluation for ongoing improvement.</li> <li>• Factors that may impact on the implementation of a systematic approach to managing OHS may include: <ul style="list-style-type: none"> <li>• barriers to communication, such as language/literacy</li> <li>• workplace culture issues, such as management commitment, supervisors’ approach to compliance and general acceptance of the priority of safety</li> <li>• diversity of workers</li> <li>• structural factors, such as multiple locations, shift work and supervisory arrangements.</li> </ul> </li> </ul>
<p><b>Tag out</b></p>	<p>Refer to <i>Isolation</i>.</p>
<p><b>Technical advisors</b></p>	<p>To the OHS function may include:</p> <ul style="list-style-type: none"> <li>• legal practitioners</li> <li>• engineers (such as design, acoustic, mechanical, civil)</li> <li>• security and emergency response personnel</li> <li>• workplace trainers and assessors</li> <li>• maintenance and trade persons.</li> </ul>
<p><b>Wellness</b></p>	<p>Refer to <i>Health promotion</i>.</p>
<p><b>Workplace policies</b></p>	<p>Comprise written statements of employer’s intentions and how the employers will action those intentions in the workplace. For example OHS, access and equity, discrimination and manual handling.</p>
<p><b>Workplace inspection</b></p>	<p>Process of examining the workplace, usually with the aid of a</p>

NOHSC Term	Explanation
	checklist, to identify hazards and level of compliance with workplace procedures.

*Some terms in the glossary have been taken from, or modified from the CCH Occupational Health and Safety Glossary, 1992 and National Guidelines for Integrating OHS Competencies into National Industry Competency Standards [NOHSC: 7025 (1998)] 2<sup>nd</sup> edition.*