**22597VIC**

**Course in Workplace Spotting for Service Assets**

This course has been accredited under Part 4.4 of the Education and Training Reform Act 2006

Accreditation period: 01 July 2022 to 30 June 2027

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# Section A: Applicant and course classification information

|  |  |
| --- | --- |
| 1. Person in respect of whom the course is being accredited
 | Copyright of this course is held by the Department of Education and Training, Victoria.© State of Victoria (Department of Education and Training) 2022 |
| 1. Address
 | Executive Director:Higher Education and Workforce DevelopmentHigher Education and SkillsDepartment of Education and Training (DET)GPO Box 4367MELBOURNE VIC 3001Organisational Contact: Manager, Training and Learning Products UnitHigher Education and Workforce DevelopmentHigher Education and SkillsDepartment of Education and Training (DET)Telephone: 131823Email: course.enquiry@education.vic.gov.auDay-to-day contact:Curriculum Maintenance Manager (CMM),Building IndustriesHolmesglen InstitutePO Box 42Holmesglen VIC 3148Telephone: (03) 9564 1987Email: teresa.signorello@holmesglen.edu.au |
| 1. Type of submission
 | This submission is for re accreditation:**22325VIC Course in Workplace Spotting for Service Assets** |
| 1. Copyright acknowledgement
 | The following unit of competency:HLTAID011 - Provide First Aidis from the HLT Health Training Package administered by the Commonwealth of Australia.© Commonwealth of Australia |
| 1. Licensing and franchise
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| 1. Course accrediting body
 | Victorian Registration and Qualifications Authority |
| 1. AVETMISS information
 | **ANZSCO code** [Click here](http://www.abs.gov.au/AUSSTATS/abs%40.nsf/DetailsPage/1220.0First%20Edition%2C%20Revision%201?OpenDocument)721211 Earthmoving Plant Operator (General)**ASCED code** [Field of Education](http://www.abs.gov.au/AUSSTATS/abs%40.nsf/DetailsPage/1272.02001?OpenDocument)0403 Building **National course code**22597VIC |
| 1. Period of accreditation
 | 01 July 2022 to 30 June 2027 |

# Section B: Course information

|  |  |
| --- | --- |
| 1. Nomenclature
 |  |
| * 1. Name of the qualification
 | Standard 4.1 AQTF 2021 Standards for Accredited CoursesCourse in Workplace Spotting for Service Assets |
| * 1. Nominal duration of the course
 | Standard5.8 AQTF 2021 Standards for Accredited Courses26 nominal hours |
| 1. Vocational or educational outcomes of the course
 |
| * 1. Outcome(s) of the course
 | Standard 5.1 AQTF 2021 Standards for Accredited CoursesThe 22597VIC Course in Workplace Spotting for Service Assets will prepare graduates with the skills and knowledge to be registered as a Spotter by Energy Safe Victoria (ESV), when working in the vicinity of overhead and underground assets with plant and equipment. They will be able to:* provide a first aid response to a casualty in a workplace setting
* ensure safe practice as a spotter
* identify and address hazards associated with plant operating close to overhead and underground assets
* undertake prestart activities and safety checks
* communicate approach limit information to plant operators
* facilitate emergency procedures and activities
* identify the operational envelope of plant/machinery.
 |
| * 1. Course description
 | Standard 5.1 AQTF 2021 Standards for Accredited CoursesThe Course in Workplace Spotting for Service Assets is designed for people wanting to become safety observers for plant and equipment. Safety observers work in close proximity to overhead and underground services. Graduates of the course may be registered as a Spotter by Energy Safe Victoria (ESV). |
| 1. Development of the course
 |
| * 1. Industry, education, legislative, enterprise or community needs
 | Standards 4.1, 5.1, 5.2, 5.3 and 5.4 AQTF 2021 Standards for Accredited CoursesThe need for registered spotters is driven by requirements administered by Energy Safe Victoria (ESV). ESV, Victoria’s energy safety regulator, is responsible for electricity, gas and pipeline safety[[1]](#footnote-1). Its objectives under the Electricity Safety Act 1998 s6 (in part) are to: * “control the electrical safety standards of electrical work carried out by electrical workers
* maintain public and industry awareness of electrical safety requirements, and
* ensure the electrical safety of electrical generation, transmission and distribution systems, electrical installations and electrical equipment.”

The registration of spotters allows ESV to meet its obligations and uphold workplace safety standards. The 22597VIC Course in Workplace Spotting for Service Assets is a requisite part of the Spotter registration process. Spotters work within the construction industry, which involves the construction, demolition, renovation, maintenance or repair of building and infrastructure. According to the National Skills Commission, construction accounts for 9% of the Australian workforce[[2]](#footnote-2); it generates over $360 billion in revenue and has the third largest industry share of total GDP for the country[[3]](#footnote-3). It is a significant contributor to the nation’s economy and workplace safety within the industry is a strong focus. ESV compiles statistics of electrical fatalities and serious incidents related to electricity generally, as well as specific statistics of electrocution caused by contact with overhead or underground power supply lines. In terms of general electrical safety, for the four years to 2018 electricity has either caused or been involved in the death of at least 11 people, and either caused or been involved in the serious injury of 25 people[[4]](#footnote-4). The industry considers this unacceptable. Over the fourteen years to 2019, ESV reports a declining trend of total deaths and serious injuries related to electricity and gas[[5]](#footnote-5). This is consistent with the broader industry trends reported by SafeWork Australia[[6]](#footnote-6). Improved safety standards and training is generally attributed to this outcome.With regard to specific statistics of incidents of mobile plant contact with overhead and underground assets (in the No Go Zone), ESV collates this data on a regular basis, as this can cause fatality or injury. Recent statistic shows a total of twenty-two (22) cases of contact for the three months to March 2021, the majority being by backhoes and excavators. Seven (7) of the twenty-two (22) cases were in contact with high voltage supply lines.While none resulted in fatalities, the high risk nature of the work requires registered spotters undertake refresher training every three years. From November 2020 to March 2021, ESV has registered approximately 222 spotters per month[[7]](#footnote-7). This course is the basis of initial spotter and refresher training. It provides an accredited training program and vocational outcomes for a person to be registered as a spotter by ESV, when working in the vicinity of overhead and underground assets of plant and equipment. The pathway to registration upon successful completion of training and assessment affirms the requisite safety standards have been met and contributes to the maintenance of building activity by:* ensuring an adequate supply of appropriately trained labour for the industry
* reducing downtime and work cover claims as a result of decreases in work related injuries.

Demand for spotting into the future is reflected in employment forecasts for the industry more broadly. In 2020, employment in the total construction sector reached just under 1,180,000; it is projected to exceed 1,282,000 by 2024[[8]](#footnote-8) , representing an increase of approximately 8% over four years. Spotting related duties could reasonably be expected to rise in line with that trend. Target group/cohortThe proposed course is intended for general labourers who have worked in the building and construction, or civil construction industries and wish to operate as a registered Spotter. They are not expected to have knowledge of electricity prior to course entry.Demand for the courseESV requires a three-year training cycle for Spotter re- registration. Therefore, course demand is fed by new entrants to the industry and the existing ‘spotting’ labour pool seeking to maintain their currency. Employers want skilled and informed workers who are able to uphold safety standards and reduce the incidence of workplace accidents and associated WorkSafe claims.Department of Education course enrolment data is displayed in Table One below.\*denotes six (6) months only

|  |
| --- |
| Table One: Course Enrolments |
| Year | Government Subsidised Enrolments | Fee Paying Enrolments | Total Enrolments |
| 2018 | 315 | 971 | 1286 |
| 2019 | 246 | 466 | 712 |
| 2020 | 162 | 332 | 494 |
| 2021 | 97 | 970 | 1067 |
| 2022\* | 0 | 54 |  |

Course consultation and validation processProject steering committee (PSC) members represented the major stakeholders invested in the curriculum (refer PSC composition).Consultation with the group involved:* Email and telephone consultation to form the PSC.
* Three PSC meetings held on 29 September 2021, 22 November 2021 and 14 February 2022 to review and evaluate course content and structure in reference to contemporary workplace spotting practices and the Standards for Accredited Courses 2021.
* One-on-one meetings with the ESV representative to review potential course amendments.
* Trainers and assessors of RTO network groups, represented by PSC members, participated in a workshop to review the content of the draft unit. Feedback was evaluated and included where required.
* Desktop reviews of current workplace spotting safety statistics and related research was also undertaken to support the development of the curriculum.

The role of the PSC was to evaluate, confirm and validate the outcomes of the course review. The members also provided technical information and training advice throughout the project.The re-accreditation of the course was guided by a Project Steering Committee (PSC) comprised of the following members:Members of the steering committeeRob Oldfield Work Practices Advisor Energy Safe VictoriaBrian Chamberlin Construction Industry Education Officer / Inspector (F1) Hazardous Industries &  Industry Practices WorkSafe VictoriaMichael Collins Electrical Trades UnionTony Lopez Assistant Director OHS Policy HIAJoe Napoli Civil Contractors  Federation (CCF) Victorian BranchDavid West Active Training Education and ComplianceCorrie Williams Director, MBTI Master Builders VictoriaChris Simpson COVE TrainerAndrew Chambers/Steven Deer CFMEUIn attendanceTeresa Signorello Curriculum Maintenance Manager  (CMM) Building and Construction Holmesglen InstituteSusan Fechner CMM Senior Project Officer Building and Construction Holmesglen InstituteThe 22597VIC Course in Workplace Spotting for Service Assets does not duplicate, by title or coverage, the outcomes of any endorsed training package qualification.This course:* does not duplicate, by title or coverage, the outcomes of an endorsed training package qualification or skill set
* is not a subset of a single training package qualification that could be recognised through one or more statements of attainment or a skill set
* does not include units of competency additional to those in a training package qualification that could be recognised through statements of attainment in addition to the qualification
* does not comprise units that duplicate units of competency of a training package qualification.
 |
| * 1. Review for re-accreditation
 | Standards 5.1, 5.2, 5.3 and 5.4 AQTF 2021 Standards for Accredited Courses**A mid cycle review of the curriculum was undertaken in** September / October 2020 **to determine the relevance and currency of its outcomes to industry since re-accreditation in 2017. Registered Training Organisations (RTOs) delivering and assessing the curriculum distributed surveys to three groups, i.e. existing students undertaking the course, trainers delivering and assessing the course, and graduates of the course.****Feedback indicated that:*** **Learners undertake the course for career purposes**
* **Learners and trainers are satisfied with the structure of the course and the content, thinking it is complete in its current form**
* **Trainers believe that the learning outcomes of the course prepare students for the workplace. This correlates with the learners views that the course meets most of their training needs**
* **Graduates of the course are employed in a field which is relevant to their training and are satisfied that the main reason for undertaking the course has been achieved.**

****Transition arrangements******The 22597VIC Course in Workplace Spotting for Service Assets replaces and is equivalent to the 22325VIC Course in Workplace Spotting for Service Assets. There can be no new enrolments in the 22325VIC Course in Workplace Spotting for Service Assets after 30 June 2022.** **Table Two maps the unit from the previous course with the unit from the current course.****Table Two: Units mapped from previous with current course**

|  |  |  |
| --- | --- | --- |
| 22597VIC Course in Workplace Spotting for Service Assets | 22325VIC Course in Workplace Spotting for Service Assets | Relationship |
| VU23165 Observe and manage the safe operation of plant and equipment around overhead and underground assets | VU21936 Observe for the safe operation of plant and equipment around overhead and underground asset | Equivalent |
| HLTAID011 Provide First Aid | HLTAID003 Provide First Aid | Not Equivalent |

 |
| 1. Course outcomes
 |  |
| * 1. Qualification level
 | Standard 5.5 AQTF 2021 Standards for Accredited CoursesThe 22597VIC Course in Workplace Spotting for Service Assets meets an identified industry and registration need but does not have the breadth, depth or volume of learning of an AQF qualification.Refer to [click here](https://www.aqf.edu.au/) |
| * 1. Foundation skills
 | Standard 5.6 AQTF 2021 Standards for Accredited CoursesFoundation skills applicable to the course are detailed in each unit of competency. |
| * 1. Recognition given to the course
 | Standard 5.7 AQTF 2021 Standards for Accredited CoursesNot applicable |
| * 1. Licensing/regulatory requirements
 | Standard 5.7 AQTF 2021 Standards for Accredited CoursesThe course does not lead to the issuance of a registration of itself, however ESV, the regulator and issuer of Spotter registrations, has established a number of conditions which must be met in addition to the successful completion of the Course in Workplace Spotting for Service Assets, before a registration will be issued. These conditions relate to age and the completion of first aid training unit/s of competency.Participants who wish to work as a spotter are required to be registered with Energy Safe Victoria (ESV). Spotter registration information is available at [click here](https://www.dese.gov.au/skills-information-training-providers/resources/australian-core-skills-framework) The 22597VIC Course in Workplace Spotting for Service Assets must be completed before applying for registration as a spotter. |
| 1. Course rules
 |  |
| Standards 5.8 and 5.9 AQTF 2021 Standards for Accredited courses* 1. Course structure

To achieve the award of 22597VIC Course in Workplace Spotting for Service Assets the learner must successfully complete two (2) core units listed below.Sequencing recommendation:The industry regulators strongly recommend the following sequencing of assessment as a risk mitigation strategy.* The unit HLTAID011 Provide first aid, is delivered and assessed prior to the delivery and assessment of VU23165 Observe and manage the safe operation of plant and equipment around overhead and underground assets

Where the full course is not completed, a VET Statement of Attainment will be issued for each unit successfully completed. |
| **Unit of competency code** | **Field of Education code (six-digit)** | **Unit of competency title** | **Pre-requisite** | **Nominal hours** |
| **Core units** |
| HLTAID011 | 069907 | Provide First Aid | Nil | 18 |
| VU23165 | 040399 | Observe and manage the safe operation of plant and equipment around overhead and underground assets | Nil  | 8 |
| **Total nominal hours** | **26** |
| * 1. Entry requirements
 | Standard 5.11 AQTF 2021 Standards for Accredited CoursesEntrants to this course must be aged 18 years at a minimum in order to satisfy the ESV registration requirement on course completion.The following is a general guide to entry in relation to the language, literacy and numeracy skills of learners aligned to the Australian Core Skills Framework (ACSF), details of which can be accessed from: [click here](https://www.dese.gov.au/skills-information-training-providers/resources/australian-core-skills-framework).Learners are best equipped to achieve the course outcomes in the Course in Workplace Spotting for Service Assets if they have minimum language, literacy and numeracy skills that are equivalent to Level 2 of the ACSF.Learners with language, literacy and numeracy skills at a lower level than suggested may require additional support to successfully undertake the Course in Workplace Spotting for Service Assets. |
| 1. Assessment
 |  |
| * 1. Assessment strategy
 | Standard 5.12 AQTF 2021 Standards for Accredited CoursesAll assessment, including Recognition of Prior Learning (RPL), must be compliant with the requirements of:* Standard 1 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guidelines 4.1 and 4.2 of the VRQA Guidelines for VET Providers,

or* the Standards for Registered Training Organisations 2015 (SRTOs),

or* the relevant standards and Guidelines for RTOs at the time of assessment.

The nature of work undertaken in this industry is hands-on and practical. Assessment strategies should therefore reflect this.It is recommended that the assessment strategy for the Course in Workplace Spotting for Service Assets includes:* oral or written questioning related to underpinning knowledge
* the practical demonstration of activities which combine a number of learning outcomes to provide depth and context to the training
* holistic assessment that reflects realistic job tasks.

Assessment must be consistent with the assessment requirements associated with the respective units of competency comprising the Course in Workplace Spotting for Service Assets. |
| * 1. Assessor competencies
 | Standard 5.14 AQTF 2021 Standards for Accredited CoursesAssessment must be undertaken by a person or persons in accordance with:* Standard 1.4 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guidelines 3 of the VRQA Guidelines for VET Providers,

or * the Standards for Registered Training Organisations 2015 (SRTOs),

or* the relevant standards and Guidelines for RTOs at the time of assessment.
* Assessment of the unit of competency imported from the national training package must reflect the requirements for assessors specified in that training product.
 |
| 1. Delivery
 |  |
| * 1. Delivery modes
 | Standard 5.13 AQTF 2021 Standards for Accredited CoursesDelivery modes must be consistent with any mandatory requirements specified in the unit of competency.The course aims to develop practical competencies within an industry setting. Practical demonstrations and opportunity for application are considered to provide the most suitable strategy to reflect the objectives of the course.As spotting involves the physical observation of plant and equipment operating around a work environment, the practical/skills components of the course must be delivered:* in a simulated workplace that accurately reflects workplace conditions.

The knowledge components of the course must be delivered via:* face-to-face, classroom-based delivery to enable development of teamwork, communication and interpersonal skills which are fundamental to the outcome of this unit.

Adequate supervision must be provided to ensure workplace safety, whenever participants are near mobile plant, dangerous machinery or in potentially hazardous environments.The unit of competency VU23165 Observe and manage the safe operation of plant and equipment around overhead and underground assets, details the range of personal protective clothing and equipment (PPE) that must be worn where the work situation warrants it to achieve the learning outcomes. |
| * 1. Resources
 | Standard 5.14 AQTF 2021 Standards for Accredited CoursesResources that are essential for the delivery of the Course in Workplace Spotting for Service Assets are detailed in the units of competency comprising the program.Physical resources include, but are not limited to:* mobile plant
* audio/visual materials depicting spotting situations, techniques, adverse incidents, overhead and underground assets
* examples of approved communication and measurement equipment and tools
* PPE
* resources include teachers/trainers who meet the AQTF Essential Conditions and Standards for Initial/Continuing Registration

Training must be undertaken by a person or persons in accordance with:* Standard 1.4 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guideline 3 of the VRQA Guidelines for VET Providers,

or * the Standards for Registered Training Organisations 2015 (SRTOs),

or* the relevant standards and Guidelines for RTOs at the time of assessment.
* A unit of competency imported from a training package must reflect the requirements for resources / trainers specified in the associated training package.
 |
| 1. Pathways and articulation
 |  |
|  | Standard 5.10 AQTF 2021 Standards for Accredited CoursesThere are no formal articulation arrangements in place at the time of accreditation for the Course in Workplace Spotting for Service Assets. Persons who have already completed the unit HLTAID011 Provide first aid, will receive a credit for that unit in this course.Refer to [click here](https://www.aqf.edu.au/publication/aqf-qualifications-pathways-policy) |
| 1. Ongoing monitoring and evaluation
 |  |
|  | Standard 5.15 AQTF 2021 Standards for Accredited CoursesThe Curriculum Maintenance Manager (CMM) for Building and Construction is responsible for the ongoing monitoring and evaluation of the Course in Workplace Spotting for Service Assets.A formal course evaluation by the CMM will normally be undertaken halfway through the accreditation period.The Victorian Registration and Qualifications Authority (VRQA) will be notified of any significant changes required to the course. |

# Section C—Units of competency

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VU23165 Observe and manage the safe operation of plant and equipment around overhead and underground assets 19

|  |  |
| --- | --- |
| UNIT CODE | VU23165 |
| UNIT TITLE | Observe and manage the safe operation of plant and equipment around overhead and underground assets |
| APPLICATION | This unit describes the performance outcomes, skills and knowledge required to work with various operators of plant and equipment in the vicinity of service assets on a worksite.It requires the ability to observe the operation of plant and equipment and warn the equipment operator when they are about to encroach into the No Go Zones (NGZ) surrounding an overhead or underground asset.This unit applies to those who intend to apply for registration as a Spotter with Energy Safe Victoria (ESV). |
| PREREQUISITE UNIT(S)  | Nil |
| ELEMENTS | PERFORMANCE CRITERIA |
| Elements describe the essential outcomes of a unit of competency. | Performance criteria describe the required performance needed to demonstrate achievement of the element.Assessment of performance is to be consistent with the evidence guide. |
| 1 | Identify industry requirements | 1.1 | Identify requirements for operating plant and equipment safely near service assets |
|  |  | 1.2 | Identify requirements for spotter registration as per state/territory requirements |
|  |  | 1.3 | Source information and identify No Go Zone clearances to overhead and underground assets |
|  |  | 1.4 | Identify potential hazards, risks and risk control that may apply to mobile plant operating near service assets |
|  |  | 1.5 | Identify relevant job site safety and risk documentation including relevant permit requirements and conditions |
|  |  | 1.6 | Identify types of service assets and components that may present within the work area |
| 2 | Plan for safe practice as a Spotter | 2.1 | Identify and review Spotter duties according to job role |
|  |  | 2.2 | Identify service assets component parts on job documentation and their potential to impact site safety |
|  |  | 2.3 | Source and confirm site and task specific hazard identification and risk assessment documentation with site management |
|  |  | 2.4 | Review operational and design envelopes and specifications of plant and equipment to be observed |
|  |  | 2.5 | Confirm accuracy and completeness of site plan and job documentation with site management |
|  |  | 2.6 | Confirm location of service assets on job documentation and identify additional assets |
|  |  | 2.7 | Establish clearance distances according to the appropriate No Go Zone Framework/permit documentation. |
|  |  | 2.8 | Identify key stakeholders, ‘service asset owners’ and key worksite contacts on job documentation |
|  |  | 2.9 | Review permit documentation for clarity and suitability to the job. |
|  |  | 2.10 | Seek advice prior to commencing work to clarify information in job documentation. |
| 3 | Prepare for Spotter duties | 3.1 | Establish and maintain communication with others involved with the work to ensure efficient workflow coordination, personnel cooperation and safety. |
|  |  | 3.2 | Select appropriate personal protective equipment (PPE), check for usability and fit correctly. |
|  |  | 3.3 | Select communication equipment, check for serviceability and report any faults to supervisor. |
|  |  | 3.4 | Locate plant and equipment to be observed in accordance with job documentation. |
|  |  | 3.5 | Confirm location of service assets on job documentation and mark if required |
|  |  | 3.6 | Assess environment and site conditions and report safety concerns to supervisor |
|  |  | 3.7 | Locate first aid and emergency equipment, procedures and contact numbers according to site/company procedures |
|  |  | 3.8 | Identify the industry standards governing the limits of approach of equipment to overhead and underground assets to determine when No Go Zones Framework / Deemed to Comply provisions will be infringed |
|  |  | 3.9 | Participate in the review of job site safety and risk documentation to ensure compliance with site conditions |
| 4 | Perform Spotter duties | 4.1 | Follow relevant Occupational Health and Safety (OHS)/Work Health and Safety (WHS), Electrical Safety legislative and organisational requirements when performing Spotter duties. |
|  |  | 4.2 | Use measuring equipment and techniques to calculate distances and heights according to industry recognised standards of accuracy |
|  |  | 4.3 | Observe plant and equipment with regular consideration of site contingencies including sag and sway of overhead assets and depths of underground assets |
|  |  | 4.4 | Use communication equipment according to manufacturer’s instructions, and company guidelines and procedures |
|  |  | 4.5 | Use communication signalling methods according to recognised standards or agreed protocols |
|  |  | 4.6 | Communicate the clearance distances to be applied to the work, with plant operator and appropriate personnel |
|  |  | 4.7 | Spot for the entry of plant and equipment into No Go Zones to industry standards to ensure safety of self and others |
|  |  | 4.8 | Implement emergency procedures in the event of an incident where plant or equipment makes contact with an electrical conductor or other service asset |
|  |  | 4.9 | Apply first aid in the event a plant or equipment operator or other worker is injured |
| 5 | Complete and review Spotter duties | 5.1 | Communicate completion of Spotter duties clearly to appropriate personnel in accordance with workplace procedures |
|  |  | 5.2 | Check tools and equipment, including PPE, check for serviceability and store in accordance with workplace procedures |
|  |  | 5.3 | Complete relevant worksite records/documents in accordance with organisational requirements and standards. |

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| RANGE OF CONDITIONS |
| Weather conditions, particularly varying wind speeds, may increase risk levels associated with Spotter duties. Also, wet weather and muddy soil can impact the stability of operational plant. |
| FOUNDATION SKILLSFoundation skills essential to performance in this unit, but not explicit in the performance criteria must be listed here, along with a brief description and how the skill is applied

|  |  |
| --- | --- |
| Skill | Description |
| Initiative and enterprise skills to: | * report workplace safety issues
* locate and access information from a range of sources
 |
| Teamwork skills to: | * work cooperatively to support equipment operator safety
 |

 |
| UNIT MAPPING INFORMATION |

|  |  |  |
| --- | --- | --- |
| Code and TitleCurrent Version | Code and TitlePrevious Version | Comments |
| VU23165 Observe and manage the safe operation of plant and equipment around overhead and underground assets | VU21936 Observe for the safe operation of plant and equipment around overhead and underground assets | Equivalent  |

 |

**Assessment Requirements**

|  |  |
| --- | --- |
| TITLE | Assessment Requirements for VU23165 Observe and manage the safe operation of plant and equipment around overhead and underground assets |
| PERFORMANCE EVIDENCE | The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:* Setup, identify and maintain safe distances from both a simulated, overhead and underground asset, with an item of plant and equipment capable of breaching the clearance no go zones.
 |
| KNOWLEDGE EVIDENCE | The learner must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:* responsibilities, function, duties, operational procedures and limitations of spotter work
* terminology that complies with the No Go Zone framework, including “spotter” and “permit” zone
* basic concepts of electrical power generation and distribution, including:
* the potential of electricity to cause injury, death or damage
* variations in conductor/s
* electricity taking the shortest path to ground
* effects of electrical incidents on the human body
* step and touch potential
* assumption that all electrical assets must be considered to be electrically live
* severed lines or cables must be considered to be live at all times
* variations which enhance the potential to arc
* traction systems (tram and train)
* types of service assets including:
* electrical conductors, earth systems, cathodic protection systems
* telecommunication cables, including fibre optic and co-axial cabling
* gas lines at distribution and transmission pressures
* liquid lines – water, sewerage, petroleum products
* drainage systems
* asset plan content including:
* Dial Before You Dig / Before You Dig Australia
* as built company plans and drawings
* asset location
* contact reference
* company drawing
* component parts of electrical distribution systems including electrical assets such as:
* overhead conductors/cables/lines
* underground service pits and pillars
* transmission towers, lines and easements
* tiger battens
* power poles
* transformers on poles or on-ground situations
* circuit breakers
* isolators
* disconnectors
* fuses
* insulators, capacitors
* cross arms
* sub-stations/kiosks in private/commercial and industrial locations
* earth systems and grids
* strainers, catenaries and support cables
* traction cabling
* conduits
* electrolysis return cabling involved with tram and train traction
* telecommunications systems
* construction installation wiring
* operational knowledge of working around overhead and underground assets related to:
* equipment and methods of communication used by No Go Zones spotters, including their reasons for use and justification
* the control of plant and equipment at a workplace using visual and auditory control signals
* the ‘design envelope’ and ‘operating envelope’ (including range of movement of the load) of the plant or equipment for which they are spotting
* clearance distances, the No Go Zones, permit zones, spotter zone and open area (no restrictions)
* techniques to locate underground assets to minimise the risk of inadvertent damage
* prestart safety activities and checks
* industry regulations and standards governing the limits of approach/No Go Zone, related to:
* WorkSafe / Energy Safe Victoria (ESV) framework for undertaking work near overhead and underground assets
* Deemed to Comply processes
* current Australian Standards relating to:
* cranes and various subcodes
* underground service identification tape colours
* safety signs for the occupational environment
* Electrical Safety Act 1998
* Electrical Safety (Installations) Regulations 2009
* Occupational and Workplace Health and Safety Acts
* Gas Safety Act 1997
* Telecommunications Act 1997
* other legislation as appropriate
* general hazard types including:
* a source which has the potential to cause illness, injury, damage or disruption to work
* a condition when plant or equipment comes close to an electrical conductor so as to contact it or cause arcing to occur resulting in earthing of the electrical supply to the ground.
* Occupational / workplace health and safety and equipment requirements:
* occupational health and safety site specific requirements
* hazard identification and risk minimisation
* the No Go Zones system of control for plant and equipment working around overhead and underground assets as identified in the ‘No Go Zones’ framework document
* fitting and use of PPE
* measuring equipment and techniques
* types of personal protective equipment (PPE) including:
* head protection
* foot protection:
* steel capped boots
* rubber soled boots
* steel capped rubber boots
* high visibility vest
* hearing protection
* dust protection (eyes or breathing)
* protection from the elements
* Ultraviolet (UV) protection
* sun glare protection
* safety glass or goggles (depending on site requirements).
* first aid equipment appropriate to the requirements of the first aid competency required as a spotter, i.e. gloves, resuscitation mask/shield
* clothing appropriate to the environment in which the spotting is being undertaken depending on site requirements and protection required
* other items appropriate to the environment
* types of communication equipment including:
* whistle
* two-way radio
* air horn
* mobile phone
* stop/ slow bat
* torch
* flag
* methods of communication signalling including:
* visual:
* hand signals
* signage
* light
* auditory
* types of measuring equipment and techniques such as:
* distance / target finder
* industry standard practices in calculating distances
* using trained personnel to operate laser or other suitable measuring equipment to assist the spotter
* job site safety and risk documentation to ensure compliance of the health and safety of work site personnel, the public and the wider environment whilst spotting for plant and equipment around overhead and underground assets, including job documentation such as:
* site plan and site specifications / mud map
* permit documentation, including permit to work and private asset owner documentation
* safety assessments
* council permits
* asset authority and permits (Dial Before You Dig / Before You Dig Australia)
* Safe Work Method Statement for High Risk Construction Work (SWMS) / Job Safety Analysis (JSA)
* plans, specifications, documentation and drawings:
* operational procedures to employ when inconsistencies arise between “permit to work”/site documentation and the physical characteristics of the site.
* emergency procedures relevant to a range of service asset types.
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| ASSESSMENT CONDITIONS | Skills in this unit must be demonstrated in a realistically simulated environment.* Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site face-to-face classroom context.
* Assessment is to comply with relevant regulatory requirements.
* Simulated assessment environments must replicate the real-life working environment where these skills and knowledge would be performed, with all the relevant equipment and resources of that working environment.

Students must have access to suitable facilities, equipment and resources including:* plant, tools and/or equipment for which they are spotting
* OHS/WHS relevant legislation governing work with plant in the vicinity of overhead and underground assets
* OHS/WHS relevant codes, industry standards and guidelines
* job site safety and risk documentation such as Safe Work Method Statement for High Risk Construction Work (SWMS)
* appropriate documentation examples
* access to appropriate systems of communications
* emergency procedures appropriate to a spotters workplace
* measuring tools and equipment appropriate to the task
* appropriate PPE
* Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards

No specialist vocational competency requirements for assessors apply to this unit. |

1. <https://esv.vic.gov.au/about-esv/corporate-information/about-esv/> [↑](#footnote-ref-1)
2. <https://www.nationalskillscommission.gov.au/jobs-industry> [↑](#footnote-ref-2)
3. <https://backtobasics.edu.au/2019/03/construction-industry-facts/> [↑](#footnote-ref-3)
4. <https://esv.vic.gov.au/wp-content/uploads/2019/02/2017-18-ESV_Annual-Report.pdf>, p.19 [↑](#footnote-ref-4)
5. ESV Annual Report 2018 / 2019, p.11 [↑](#footnote-ref-5)
6. <https://www.safeworkaustralia.gov.au/system/files/documents/2002/work_related_traumatic_injury_fatalities_report_2018.pdf>, p.8 [↑](#footnote-ref-6)
7. ESV. Spotters Training Providers Meeting Minutes April 2021 [↑](#footnote-ref-7)
8. <https://nationalindustryinsights.aisc.net.au/industries/construction> [↑](#footnote-ref-8)