



Australian Government

UETTDRSO46 Monitor and control the field staff activities

Release: 1

UETTDRSO46 Monitor and control the field staff activities

Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector Training Package.

Application

This unit covers the monitoring of permit to work requests, dispatching personnel, responding to alarms, travel and activity monitoring of field personnel, monitoring work activities of field personnel against work schedule.

It also includes contingency skills, response to third-party enquiries, out of hour, response to man down alarm, tracking of field personnel (remote area), monitoring activities on system equipment, monitoring availability of assets (maintain a log), monitor equipment status, coordinating field activities, controlling and authorising field works, and preparing incident reports.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace subject to regulations for undertaking of electrical work.

Other conditions may apply under state and territory legislative and regulatory licencing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

To minimise incidents related to safe systems of work, entry into this unit requires at a minimum that an individual has demonstrated or possesses relevant technical engineering discipline competencies of at least AQF level 3. It is intended that an individual will be expected to perform with a large degree of autonomy in decision making, whilst in an individual environment.

This may include immediate response to protect human life, adverse effect on safety, security of supply or the integrity of the assets.

NOTE: Typically the following disciplines provide direct entry; electrical or instrumentation, fitting and turning or mechanical trade.

Where an individual does not possess or demonstrate the requisite entry requirement, an equivalent bridging program should be used to ensure equivalence of entry.

Competency Field

System Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan for the monitoring and controlling of field activities

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work schedules, plans, requirements and established procedures are detailed and analysed and, if necessary, the extent of the preparation of the work determined for planning and coordination
- 1.2** Shift handover detail is received, understood and confirmed according to established procedures
- 1.3** Work is prioritised and sequenced for the most efficient and effective outcome following consultation with others for completion within acceptable timeframes, to a quality standard and in accordance with established procedures
- 1.4** Risk control measures for identified hazards are prioritised, implemented and evaluated against the work schedule
- 1.5** Salient system constraints are communicated to relevant persons and identified for worksites in accordance with established procedures
- 1.6** Operational and commercial requirements are communicated to stakeholders in accordance with established procedures
- 1.7** Work health and safety (WHS)/occupational health and safety (OHS), environmental and sustainable energy policies and procedures related to the work are identified to ensure safe systems of work are followed
- 1.8** Relevant work permits are secured to coordinate the performance of work according to requirements and established procedures
- 1.9** Liaison and communication with authorised personnel, authorities, clients and land owners is performed/actioned and activities are coordinated to

		carry out work
2 Undertake monitoring and controlling of field activities	2.1	WHS/OHS policies and procedures and safe work practices are followed to eliminate or minimise incidents and hazards
	2.2	Work is performed and coordinated in accordance with work schedules and established procedures
	2.3	WHS/OHS risks are monitored and action taken according to established procedures
	2.4	Remedial actions are taken to overcome any shortfalls encountered in the work schedule according to requirements and established procedures
	2.5	Essential knowledge and associated skills are applied in an agreed timeframe and to quality standards efficiently according to requirements and established procedures
	2.6	Solutions to non-routine problems are identified and actioned using essential knowledge and associated skills according to requirements
	2.7	Ongoing checks of quality of the work are undertaken in accordance with requirements and established procedures to ensure a quality outcome is achieved for the client/customer to community and industry standards
3 Complete monitoring and controlling of field activities	3.1	Work undertaken is checked against work schedule for conformance with requirements and anomalies are reported and solutions identified in accordance with established procedures
	3.2	Relevant work permit(s) and field activities are signed off and the status of plant, equipment and personnel movements recorded and handover procedures are conducted in accordance with established procedures
	3.3	Shift handover detail is relayed and confirmed according to established procedures
	3.4	Work completion records, reports, documentation and information is confirmed, processed and appropriate personnel notified

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of

competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDRSO46A Monitor and control the field staff activities.

Links

UET Training Package Companion Volume Implementation Guide is found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>

Assessment Requirements for UETTDRSO46 Monitor and control the field staff activities

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying relevant work health and safety (WHS/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- completing all the following:
 - evaluating, responding to and reporting threats to systems operation/security
 - identifying and reporting abnormal conditions of the network
 - using relevant field permit to work systems
 - responding correctly to alarms
 - monitoring field work activities
 - communicating effectively in the workplace
 - operating communications equipment
 - interpreting technical drawings and symbols
 - following emergency response procedures
 - utilising relevant WHS/OHS legislation, regulations, codes of practice, policies and procedures
 - applying planning skills
- dealing with unplanned events on at least one (1) occasion.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- personal computer operating systems encompassing:
 - basic function, components and concepts
 - operating systems in use
 - system installation and configuration
- transmission, distribution and rail systems encompassing:

- relationship between the transmission, distribution and rail/tram system within an overall power system - different organisations responsible for generation, transmission, distribution and rail/tram; how they correlate and their functions
- characteristics of a transmission, distribution and rail system - principal components; typical voltage levels and methods of transmission and distribution, including grid type transmission systems, radial, parallel and ring main feeders
- relationship between an overhead and underground supply systems within an overall power system - advantages/disadvantages, applications and the basic steps for planning and installing an overhead and underground distribution system
- single line drawings and layouts - drawings and layouts of transmission and distribution systems, including radial, parallel and ring main feeders and the high voltage (HV) equipment associated with substations
- coordinating access authority procedures encompassing:
 - specific enterprise processes, policies and procedures to be followed
 - processes of consultation, negotiation and coordination - clear and concise instructions and information, methods for the encouragement of feedback and contributions of information and ideas, and responsibilities of members of the team
 - techniques in analysing, planning, coordinating and organising work for a safe outcome according to statutory requirements and regulations
 - techniques in the effective utilisation of available resources
 - techniques in the development of an access authority/permit and/or access authority/permit issuing procedures
 - techniques in facilitating and coordinating the delivery and issuing of access authorities
 - techniques in gathering, collating and confirming data on different worksites - electrical network diagrams for the specific worksite, earth access authorities, safe working area, work to be carried out in confined space or in hazardous environment, specific outsourcing procedures, specific hazard identification, risk classification and management procedures, and regulatory requirements such as WHS/OHS and electrical safety
 - techniques in receiving and coordinating the cancellation of access authorities in readiness for restoration
 - methods of conducting audits on correct access authority procedures
 - process of issuing of other access authorities for work permits - working in confined space, if required, coordination of access authorities, and engaging and briefing contractors on electrical and other work
 - issue and receipt of operating agreements
- implementation and monitoring requirements for the impact of powerline installations and operation on the environment and/or the area surrounding the powerline and/or equipment encompassing:
 - identification of relevant legislation, codes and government guidelines for the implementation and monitoring of environmental impact factors in the workplace and areas of power distribution or transmission - Commonwealth/state/territory legislation relevant to the workplace and the Environment Protection Act legislation and common law
 - identification, assessment, control and monitoring of the hazards to the environment

associated with the powerline industry

- workplace environment quality standards enterprise plan - setting of acceptable emission level limits from power plant equipment, impact of the enterprise activities on air and water quality, nature, impact and level of emissions from power plant, power distribution and transmission equipment and network infrastructure (noise generation, noxious gas emissions, greenhouse gas production, electromagnetic emissions, electromagnetic field strength, oil leakage and insulation breakdown products)
- provision of manufacturer and supplier information, such as material safety data sheets (MSDS)
- gathering of environment management information
- maintenance of environmental records
- risk assessment and its management in powerline industry
- maintenance strategies for environment protection programs - developing processes for promoting, maintaining and improving environmental impact in the workplace; and identifying techniques for evaluating and reviewing environment protection education and training programs and elements of an effective environment protection management system; Environment Protection Authority (EPA) consultation and accident/incident investigations
- principles of statutory and safety considerations encompassing:
 - Commonwealth/state/territory legislation, standards, codes, supply authority regulations and/or enterprise requirements associated with working on HV
 - particular reference to state and territory regulations regarding - working near energised conductors, electrical access, heights, confined space, testing procedures and licensing rules
- HV system switching principles, including switching authorisation procedures encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements applicable to system switching
 - requirements for the use of manuals, system diagrams/plans and drawings
 - types and characteristics of HV systems and equipment to be switched
 - procedures for obtaining correct HV switching authorisation - identification of WHS/OHS hazards, assessing and controlling risks, safety procedures and precautions, and safe approach distances (SAD)
 - responsibilities and protocols for identifying switching resources, procedures for obtaining electrical access permits authorities, requirements for team switching and procedures for coordination of operations
 - techniques in HV system switching - pre-switching checks, switching operational procedures, isolation procedures and proving dead de-energised, earthing procedures, switching operational procedures, emergency fault procedures and energisation procedures
- low voltage (LV) system switching principles, including switching authorisation procedures, encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements applicable to system switching
 - requirements for the use of manuals, system diagrams/plans and drawings

- types and characteristics of LV systems and equipment to be switched
- procedures for obtaining correct LV switching authorisation - identification of WHS/OHS hazards, assessing and controlling risks, safety procedures and precautions, SAD, responsibilities and protocols, identifying switching resources, procedures for obtaining electrical access permits authorities, requirements for team switching and procedures for coordination of operations
- techniques in LV system switching - isolation procedures and proving dead, earthing procedures, pre-switching checks, switching operational procedures, emergency fault procedures and energisation procedures
- coordinating and directing switching instructions encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements applicable to switching sheet instructions
 - specific enterprise processes, policies and procedures to be followed
 - processes of consultation, negotiation and coordination - clear and concise instructions and information, methods for the encouragement of feedback and contributions of information and ideas, and responsibilities of members of the team
 - techniques in analysing, planning, coordinating and organising work for a safe outcome according to statutory requirements and regulations
 - techniques in the effective utilisation of available resources
 - techniques in the coordination and directing of switching schedules instructions
 - relationship between the operating authorities and HV customers, and operating agreements
 - techniques in coordinating and directing HV and LV switching of electrical networks
 - requirements for the use of manuals, system diagrams/plans and drawings - types, characteristics and capabilities of LV and HV electrical equipment to be switched
 - responsibilities of the switching operator
 - techniques in writing switching instructions - sequence of switching operations, isolation procedures, earthing procedures and switching completion notification procedures
 - techniques in gathering, collating and confirming data on switching procedures
- HV overhead and substation switching principles encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements applicable to HV overhead and substation switching
 - requirements for the use of manuals, system diagrams/plans and drawings - types, characteristics and capabilities of HV electrical equipment to be switched; use, characteristics and capabilities of specialised tools and testing equipment
 - role and responsibilities of the HV switching operator
 - operational forms, access authorities and permits hazard/risk assessments associated with HV switching - types of operational forms, access authorities and permits; hazard/risk assessments, purpose and procedure for operational forms; access authorities and hazard/risk assessments
 - use and operation of equipment associated with HV overhead and substation equipment - test instruments, sticks, interrupters and arc stranglers
 - HV switchgear – types, categories, application and operating capabilities

- operation of HV overhead switching or indicating devices - fuses, disconnect fuses, load switching, live line indicators, capacitors, reclosers, sectionalisers, underslung links, airbreaks switches, disconnects, live line clamps, phasing sticks and phasing tester
- operation of protection systems and substation equipment - fault levels and settings; types and applications; protection systems and substation equipment fault levels and settings; types and applications
- restrictions pertaining to HV switching equipment
- procedures for the isolation of HV mains and working earths - earthing HV electrical apparatus practices and procedures for access authority issuing, and HV switching techniques
- operate switching apparatus - identifying hazards, assessing and controlling risks associated with HV switchgear operation, systematic and defensive techniques, mobile radio procedures and double isolation procedures
- LV overhead and substation switching principles encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements applicable to LV overhead and substation switching
 - requirements for the use of manuals, system diagrams/plans and drawings - types, characteristics and capabilities of LV electrical equipment to be switched; use, characteristics and capabilities of specialised tools and testing equipment; and role and responsibilities of the LV switching operator
 - operational forms, access authorities and hazard/risk assessments associated with HV switching - types of operational forms, access authorities and hazard/risk assessments, purpose and procedure for operational forms, access authorities and hazard/risk assessments
 - use and operation of equipment associated with LV overhead and substation equipment - test instruments, sticks, interrupters and arc strangles
 - LV switchgear – types, categories, application and operating capabilities
 - operation of LV overhead switching or indicating devices - fuses, disconnect fuses, load switching, underslung links, airbreak switches, disconnects, live line clamps, phasing sticks and phasing tester
 - operation of protection systems and substation equipment - fault levels and settings; types and applications, protection systems and substation equipment fault levels and settings; types and applications
 - restrictions pertaining to LV switching equipment
 - procedures for the isolation of LV distributions main and working earths
 - earthing LV electrical apparatus practices and procedures for access authority issuing
 - LV switching techniques
 - operate switching apparatus - identifying hazards, assessing and controlling risks associated with LV switchgear operation, systematic and defensive techniques, mobile radio procedures and double isolation procedures
- enterprise-specific policies and procedure instructions encompassing:
 - responsibilities and duty of care of employer and employee relationship
 - methods of obtaining the up-to-date information on enterprise policies and procedures

- rules and regulations
- induction into workplace - location of work area and storage area, timetable, uniform, personal wellbeing, housekeeping rules, emergency procedures and evacuation procedures
- techniques when dealing with others - working in teams, customer relation, and complaint and issues procedures
- overview of enterprise professional development - fire-fighting procedures, fatigue management, and training and competency development - understanding and promotion
- enterprise-specific WHS/OHS instructions encompassing:
 - standards, codes, legislation, supply authority regulations and specific enterprise regulations pertaining to WHS/OHS policies and procedures
 - methods of obtaining the up-to-date information on enterprise OHS policies and procedures
 - specific enterprise personal protection equipment (PPE) - type and application; where and when to be used; method of replacement; responsibility of maintenance, including cleaning, inspection and testing; and emergency response, rescue, evacuation and first aid procedures
 - personal wellbeing – hygiene, fatigue/stress management and drugs/alcohol
 - WHS/OHS training - induction training, specific hazard training, specific task or equipment training, emergency and evacuation training, and training as part of broader programs such as equipment operation
 - WHS/OHS records - audits; inspection reports; workplace health and environmental monitoring records; training and instruction records, manufacturer and supplier information, such as material safety data sheets (MSDS); registers; maintenance reports; workers compensation and rehabilitation records; and first aid/medical records
- effective management and communication encompassing:
 - Commonwealth/state/territory and local government legislation, standards, codes, supply authority regulations and/or enterprise requirements applicable to assisting in effective management and communication
 - enterprise operational principles - workplace WHS/OHS enterprise plan, environmental enterprise policies and procedures, industrial relations policies and procedures, and anti-discrimination policies and procedures
 - relationship between the management and employees - methods used to collate and distribute/disseminate information, responsibilities of each member of the work team, staff development activities and legislation requirements with regard to WHS/OHS training, methods of addressing barriers such as literacy and cultural differences, and provisions relating to WHS/OHS issue resolution
 - techniques associated with organisational policies and procedures related to human resources - relevant awards and certified agreements, legislation impacting on people management, and range of support services and expertise available
 - techniques in managing relationships - identifying problems; methods of conflict resolution; methods of consultation, communication, negotiation and mentoring; and strategies for positive feedback
 - techniques in leadership in achieving enterprise strategic and operational plans

- techniques in managing relationships under stress - stress management.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated conditions involving realistic and authentic activities that replicate operational workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, facilities, equipment and PPE currently used in industry
- applicable documentation, including workplace procedures, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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