Australian Government

Department of Education, Employment and Workplace Relations

UEENEED144A Commission industrial computer systems

Release: 1

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Modification History

Not applicable.

Unit Descriptor

Unit Descriptor **1) Scope:**

1.1) Descriptor

This competency standard unit covers undertaking commissioning procedures of industrial computer systems to comply with predetermined parameters and delivery to client. It encompasses safe working practices, system parameter testing, analysis and adjusting to assure optimum performance, following procedures, and documenting final operating parameters and settings.

Application of the Unit

Application of the Unit **2)**

This competency standard unit is intended to augment formally acquired competencies. It is suitable for employment-based programs under an approved contract of training or institutional based delivery. It is intended to apply to any formal recognition for this standard at the aligned AQF 5 level.

Licensing/Regulatory Information

License to practice **3)**

The skills and knowledge described in this unit require a licence to practice in the workplace where plant and equipment operate at voltage above 50 V a.c. or 120 V d.c. In some States/Territories a licence is required to practice this unit in the workplace subject to regulations for undertaking refrigeration and air conditioning work

License to practice **3)**

and in particular working with refrigerants. Practice in workplace and during training is also subject to regulations directly related to occupational health and safety and where applicable contracts of training such as apprenticeships and the like.

Note:

1. Compliance with permits may be required in various jurisdictions and typically relates to the operation of plant, machinery and equipment such as elevating work platforms, powder operated fixing tools, power operated tools, vehicles, road signage and traffic control, lifting equipment and the like. Permits may also be required for some work environments such as confined spaces, working aloft, near live electrical apparatus, site rehabilitation and the like.

2. Compliance may be required in various jurisdictions relating to currency in first aid, confined space, lifting, risk safety measure and the like.

Pre-Requisites

Prerequisite Unit(s) **4)**

Competencies **4.1)**

Granting competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.

UEENEEE101A	Apply Occupational Health Safety regulations, codes and practices in the workplace

Literacy and numeracy skills **4.2)**

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 "Literacy and Numeracy"

Reading 5 Writing 5 Numeracy 5

Employability Skills Information

Employability Skills **5)**

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare to commission computer systems	1.1 OHS procedures for a given work area are obtained and understood.
	1.2 Established OHS risk control measures and procedures in preparation for the work are followed.
	1.3 Safety hazards that have not previously been identified are noted and established risk control measures are implemented.
	1.4 Appropriate personnel are consulted to ensure the work is co-ordinated effectively with others involved on the work site.

ELEMENT	PERFORMANCE CRITERIA	
	1.5	System operating parameters are identified by reviewing system specifications and component technical data.
	1.6	Tools, equipment, applications, and testing devices needed for the work are obtained in accordance with established procedures and checked for correct operation and safety.
	1.7	Preparatory work is checked to ensure no unnecessary damage has occurred and complies with requirements.
	1.8	Circuits are checked as being isolated, where necessary, in strict accordance OHS requirements and procedures.
2 Commission computer systems.	2.1	OHS risk control measures and procedures for carrying out the work are followed.
	2.2	Testing/measuring devices are connected and set up in accordance with requirements for a particular system.
	2.3	Measurements and adjustments are made to computer equipment to provide optimum system performance in accordance with system specifications and/or regulatory requirements.
	2.4	Decisions for dealing with unexpected situations are made from discussions with appropriate persons and job specifications and requirements.
	2.5	Methods for dealing with unexpected situations are selected on the basis of safety and specified work outcomes.
	2.6	Systems' commissioning procedures are performed in accordance with requirements.
	2.7	Commissioning is carried out efficiently without unnecessary waste of materials or damage to apparatus, the surrounding environment or services and using sustainable energy principles.

ELEMENT	PERFORMANCE CRITERIA
3 Completion and report commissioning activities.	3.1 OHS risk control work completion measures and procedures are followed.
	3.2 Adjustment settings are documented in accordance with established procedures.
	3.3 Work site is cleaned and made safe in accordance with established procedures.
	3.4 Commissioning results and work completion are notified to appropriate person or persons in accordance with established procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Evidence shall show that knowledge has been acquired of safe working practices and commissioning computer systems.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-ED144A Commissioning processes and procedures

Evidence shall show an understanding of commissioning process processes and procedures to an extent indicated by the following aspects:

T1 Purpose of commissioning

T2 Commissioning planning and documentation

T3 Procedures for commissioning systems encompassing:

- configuring
- calibrating
- tuning
- validating system performance to specification
- procedures followed to commission instrument systems

T4 Purpose and importance of documentation

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the unit of competency and must be read in conjunction with the performance criteria and the range statement of the unit of competency and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this Competency Standard Unit and shall be used in conjunction with all components parts of this unit and, performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment **9.1)**

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the Industry's preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accord with Industry and, Regulatory policy in this regard.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be 'rich' in nature so as to minimise error in judgment.

Activities associated with normal every day work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practiced. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the Assessment Guidelines of this Training Package.

Critical aspects of evidence required to demonstrate competency in this unit **9.2)**

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated performance criteria shall be demonstrated on at least two occasions in accordance with the "Assessment Guidelines – UEE11". Evidence shall also comprise:

- A representative body of work performance demonstrated within the timeframes typically expected of the discipline, work function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:
  - Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the performance criteria and range; and
  - Apply sustainable energy principles and practices as specified in the performance criteria and range; and
  - Demonstrate an understanding of the essential knowledge and associated skills as described in this unit. It may be required by some jurisdictions that RTOs provide a percentile graded result for the purpose of regulatory or licensing requirements. ; and
  - Demonstrate an appropriate level of skills enabling employment; and
  - Conduct work observing the relevant Anti Discrimination legislation, regulations, polices and workplace procedures; and
- Demonstrated consistent performance across a representative range of contexts from the prescribed items below:
  - Commission computer systems as described in 8) and including:

A Identifying system design performance parameters and requirements

B Measuring and adjusting system components to provide optimum system performance

C	Ensuring system operates within regulatory and/or specification requirements
D	Documenting adjustment settings with established procedures
E	Dealing with unplanned events by drawing on essential knowledge and skills to provide appropriate solutions incorporated in the holistic assessment with the above listed items

Note:
Successful completion of relevant vendor training may be used to contribute to evidence on which competency is deemed. In these cases the alignment of outcomes of vendor training with performance criteria and critical aspects of evidence shall be clearly identified

Context of and specific resources for assessment

9.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to undertake actual work as prescribed by this competency standard unit.

Resources required to assess this unit are listed above in Context of assessment', which should also be used in the formal learning/assessment environment.

Note:

Where simulation is considered a suitable strategy for assessment it must ensure that the conditions for assessment are authentic and as far as possible reproduce and replicate the workplace and is consistent with the approved industry simulation policy.

The resources used for assessment should reflect current industry practices in relation to commissioning computer systems.

Method of assessment **9.4)**

This competency standard unit shall be assessed by methods given in Volume 1, Part 3 "Assessment Guidelines".

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this competency standard unit applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and skills described in this unit.

Concurrent assessment and relationship with other units **9.5)**

There are no concurrent assessment recommendations for this unit.

Range Statement

RANGE STATEMENT

10) This relates to the unit of competency as a whole providing the range of contexts and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

This competency standard unit shall be demonstrated in relation to commissioning two different types of computer systems and associated components and controls.

Generic terms are used throughout this Vocational Standard shall be regarded as part of the Range of Variables in which competency is demonstrated. The definition of these and other terms that apply are given in Volume 2, Part 2.1.

Unit Sector(s)

Not applicable.

Competency Field

Competency Field 11)

Computer Systems