

EUSMUNC13 (SQA Unit Code - FA90 04)

Install engineering products or assets for Utility Network Construction



Overview

This national occupational standard defines the competence required to interpret technical specifications and install new engineering products or assets

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Performance criteria

You must be able to:

Interpret technical information for installing components of the system

- P1 use drawings, records, work documents, manuals, and technical specifications to provide work details for component installation
- P2 take off dimensions, lengths, widths, and quantities from the technical information
- P3 take off the positions of utilities plant, services, buildings, kerbs and boundaries from the technical information
- P4 make corrections through drawings, records and work documents

You must be able to:

Select components and resources for installation of the system

- P5 select the type of the components in compliance with the work and quality specifications
- P6 follow procedures to replace defective components, non-match components, and sub-standard components
- P7 ensure sufficient labour, plant, equipment, materials and consumables are available for the job in hand
- P8 deal promptly and effectively with actual and predicted changes to the planned use of the resource
- P9 check components and installation equipment for operability and ensure free from damage

You must be able to:

Install components of the system

- P10 determine method of installation to be used (e.g. mains bursting, dead insertion, live insertion, soil displacement, directional drilling, open cut)
- P11 carry out a site-specific risk assessment and review in accordance with company policy
- P12 select and wear the designated PPE
- P13 check and confirm the condition of the excavation conforms with instructions and specifications
- P14 select, prepare and operate installation equipment in accordance with the specification and manufacturer's instructions
- P15 position components in accordance with the specification
- P16 assemble components to industry standards using mechanical and/or fusion welding techniques
- P17 take adequate precautions to prevent damage to components, tools and equipment during installation
- P18 protect installed assets with fine fill in accordance with specification and codes of practice
- P19 maintain proximity distances from other utilities apparatus in accordance with approved codes of practice

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- P20 ensure installed assets are supported and anchored in accordance with codes of practice
- P21 connect to existing system using in-line squeeze off, side entry or top entry tee, in accordance with codes of practice.
- P22 check quality of installation and confirm compliance with specified standard.
- P23 maintain the security and safety of the system and third parties where work is not complete or not to schedule
- P24 ensure work practices conform to safe working procedures throughout the work activity
- P25 follow all procedures where lone working is required

You must be able to:

Use and communicate data and information

- P26 provide oral information to the people who will require technical information in a way that ensures they have understood it
- P27 provide written instructions to the people who will be using technical information in a way that suits the type of information and how it will be used
- P28 confirm the recipients of technical information have understood it
- P29 report, to a designated person, any inaccuracies in the technical information sources used
- P30 complete work documentation accurately and record it in the specified place or pass to a designated person
- P31 follow correct procedures if working on a 'permit to work' designated activity

You must be able to:

Resolve problems that arise from technical information and installation work

- P32 report - to the designated person - damage or defects to tools, equipment or materials
- P33 report work which is incomplete and not to schedule to the designated person
- P34 refer problems and conditions outside the responsibility of the job role to a designated person using approved procedures

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Knowledge and understanding

You need to know and understand:

General

- K1 the main responsibilities of the employer and employee under the Health and Safety at Work Act
- K2 the health and safety guidance governing work in excavations
- K3 the safe procedures for handling hazardous materials
- K4 organisational accident recording and reporting procedures
- K5 the range and use of personal protective equipment for the work

You need to know and understand:

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- K6 the importance of carrying out on-site risk assessments and the need for constant review
- K7 the importance of understanding and implementing a safe system of work (SSOW) document when working in excavations
- K8 organisations policy and procedures for meeting relevant statutory requirements, regulations, codes of practice
- K9 the implications for not obtaining the correct authorisation
- K10 the factors affecting, and means of confirming, the suitability of excavations
- K11 potential dangers in trenches and holes
- K12 the main responsibilities of employers and employees under the current working at height regulations
- K13 the dangers of taking actions that can create confined spaces risks in excavations
- K14 the implications of using incorrect plant, tools, materials and system components
- K15 actions to be taken where plant, tools, materials and system components fail to meet required specification
- K16 faults associated with use of inappropriate installation methods and tools
- K17 range of isolation methods available and rationale for selection
- K18 the procedure for obtaining authorisation to proceed with connections
- K19 the importance of obtaining necessary permissions for isolation of any part of utilities network
- K20 range of actions to be taken if work cannot proceed to schedule
- K21 means of determining appropriate safe remedial action if work cannot proceed
- K22 methods of accessing information obtainable from reference documents, Regulations, Codes of Practice
- K23 the organisation's policy and procedures for meeting relevant statutory requirements, Regulations, Codes of Practice
- K24 types and causes of disruption likely and avoidance measures
- K25 dangers of inadequate handling and lifting procedure

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- K26 types and signs of defect likely to be present on sub-system and means of determining the correct, and safe, action
- K27 the importance of compliance with current industry standards

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Additional Information

Behaviours

Behaviour which underpins effective performance

You work in a manner in which you:

1. are vigilant to possible risks and hazards
2. treat people with civility

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