

# Network Construction (Gas and Water) Specific Requirements to Final Generic Assessment Strategy

V 8.7 (December 2015)

Appendix G

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These are the current requirements for accredited vocational qualifications. They will remain in place until the certification end dates. Any requirements for new vocational qualifications will be discussed by EU Skills and the industry and agreed with the awarding body (ies) when the new qualifications are developed.

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## Qualifications that this strategy applies to:

This assessment strategy appendix applies to the qualifications listed below (and all pathways within them). It must be used in conjunction with the EU Skills Final Assessment Strategy for Vocational Qualifications v8.6 December 2014.

### **Network Construction Operations (Water):**

- Level 1 Network Construction Operations (Water)
- Level 2 Network Construction Operations (Water) – Service layer
- Level 2 Network Construction Operations (Water) – Main layer
- Level 2 Network Construction Operations (Water) – Repair and Maintenance
- Level 3 Network Construction Operations (Water)

### **Network Construction Operations (Gas):**

- Level 1/(SCQF) Level 5 Certificate in Network Construction Operations (Gas)
- Level 2/(SCQF) Level 5 Diploma in Network Construction Operations (Gas) – Service layer
- Level 2/(SCQF) Level 5 Diploma in Network Construction Operations (Gas) – Main layer
- Level 3/(SCQF) Level 6 Network Construction Operations (Gas)

<p><b>Assessor/ Verifier experience</b></p>	<p>Assessors and verifiers must comply with the competence requirements as listed in the EU Skills Final Assessment Strategy for Vocational Qualifications v8.6</p> <p>In addition:</p> <p>Assessors who are assessing the units listed below, common to both water and gas network construction qualifications, must have experience in network construction in either the gas or water sector.</p> <p><b>Please note The NOS Unique Reference Number (URN) has been amended in line with the NOS Database URN requirements, no changes have been made to the title or content of the NOS the unit, e.g. NOS number NCO101 is now EUSNCO101.</b></p> <p><b>Level 1/SCQF Level 5:</b></p> <ul style="list-style-type: none"> <li>• EUSNCO101 – Assist in locating and avoiding supply apparatus and sub structures</li> <li>• EUSNCO102 – Working under supervision, excavate holes and trenches in ground and pavement structures</li> <li>• EUSNCO103 – Assist in preparing for reinstatement of excavation and pavement surface</li> <li>• EUSNCO106 – Working under supervision, operate powered tools and equipment for routing and predictable requirements during gas network operations</li> <li>• EUSNCO107 – Working under supervision, join polyethylene pipe by electrofusion welding</li> <li>• EUSNCO109 – Assist in preparing resources and segregating the area for highways works</li> <li>• EUSNCO110 – Assist in preparing resources and segregating the area for site works</li> <li>• EUSNCO111 – Working under supervision, join polyethylene pipe by butt fusion welding</li> </ul> <p><b>Level 2/SCQF Level 5:</b></p> <ul style="list-style-type: none"> <li>• EUSMUNC01 – Create an efficient and effective work environment in utilities network construction</li> <li>• EUSMUNC03 – Establish and maintain effective working relationships in utilities network construction</li> <li>• EUSMUNC04 – Install equipment for safe working on the highway for utilities network construction</li> <li>• EUSMUNC05 – Install equipment for safe working on sites for utilities network construction</li> <li>• EUSMUNC06 – Locate and avoid supply apparatus for utilities network construction</li> </ul>
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- EUSMUNC07 – Excavate and maintain holes and trenches for utilities network construction
- EUSMUNC08 – Reinstate excavation and pavement surfaces after utility network construction operations
- EUSMUNC09 – Operate powered tools and equipment for routine and predictable requirements on utilities network construction
- EUSMUNC10 – Joint materials by electrofusion processes on utilities network construction
- EUSMUNC11A - Join materials by butt fusion processes up to 180mm on utilities network construction
- EUSMUNC11B – Join materials by butt fusion process between 180 and 315mm on utilities network construction
- EUSMUNC11C – Join materials by butt fusion process above 315mm on utilities network construction.

**Assessors who are assessing the units listed below, specific to water network construction qualifications, must have experience in network construction in the water sector.**

**Level 1:**

- EUSNCO104 – Working under supervision, contribute to an efficient and effective work environment
- EUSNCO105W – Working under supervision, contribute to health, safety and the environment in the workplace, including hygiene
- EUSNCO108W – Working under supervision, assemble components to meet specifications

**Level 2:**

- EUSMUNC02 – Maintain a safe and secure working environment in utilities network construction
- EUSMUNC12 – Joint materials by mechanical means on water network construction
- EUSMUNC13B – Install engineering products or assets for utilities network construction up to 50mm NB (63mm PE)
- EUSMUNC13C – Install engineering products or assets for utilities network construction (water mains up to 150mm NB (180mm))
- EUSMUNC18 – Restore water network components to operational condition by repair
- EUSMUNC13D – Install engineering products or assets for utilities network construction from 150mm NB (180mm) to 300mm NB (315mm)
- EUSMUNC13F – Install engineering products or assets for utilities network construction above 300mm NB (315mm)

	<ul style="list-style-type: none"> <li>• EUSMUNC14 – Conduct specified testing of water engineering products or assets.</li> </ul> <p>Level 3:</p> <ul style="list-style-type: none"> <li>• EUSNCO301 – Carry out risk assessments for network construction operations</li> <li>• EUSNCO302 – Carry out operational planning for network construction operations</li> <li>• PROHSS1- Make sure your own actions reduce risks to health and safety</li> <li>• EUSNCO304 – Ensure your own actions aim to protect the environment</li> <li>• EUSNCO305 – Locate and avoid supply apparatus and sub-structures</li> <li>• EUSNCO306 – Monitoring signing, lighting and guarding</li> <li>• EUSNCO307 – Monitoring excavation in the highway</li> <li>• EUSNCO308 -Implement installation and construction methods and procedures for network construction operations</li> <li>• EUSNCO309 -Monitor the installation and construction process for network construction operations</li> <li>• EUSNCO313 -Obtain information for decision making</li> <li>• EUSNCO314 -Record and store information</li> <li>• EUSNCO315 -Analyse information to support decision making</li> <li>• EUSNCO316 -Advise and inform others</li> <li>• EUSNCO317 - Contribute to controlling costs against agreed budgets</li> <li>• EUSNCO318 -Control network activities against quality standards and systems</li> <li>• EUSNCO319 -Establish and maintain professional relationships</li> <li>• EUSNCO320 -Coach individual learners</li> <li>• CFAM&amp;LDC2 - Support individuals' learning and development</li> <li>• EUSNCO310 -Commission water networks</li> <li>• EUSNCO311 -Transfer control of networks</li> <li>• EUSNCO312 -Implement decommissioning methods and procedures for networks</li> <li>• EUSNCO322 -Inform customers about network construction (water) related issues</li> <li>• EUSNCO323 -Agree a course of action to deal with network construction (water) related issues.</li> </ul> <p><b>Assessors who are assessing the units listed below, specific to gas network construction qualifications, must have experience in network construction in the gas sector.</b></p> <p>Level 1/SCQF Level 5:</p> <ul style="list-style-type: none"> <li>• EUSNCO104G – Working under supervision, contribute to an</li> </ul>
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	<p>efficient and effective work environment in gas network construction</p> <ul style="list-style-type: none"> <li>• EUSNCO105G – Working under supervision, contribute to health, safety and environment in the workplace during gas network construction</li> <li>• EUSNCO108G – Working under supervision, assemble components to meet specifications for gas network construction operations</li> </ul> <p><b>Level 2/SCQF Level 5:</b></p> <ul style="list-style-type: none"> <li>• EUSMUNC02 – Maintain a safe and secure working environment in utilities network construction</li> <li>• EUSMUNC13A – Install gas services up to 63mm</li> <li>• EUSMUNC13C – Install gas engineering products or assets up to 180mm</li> <li>• EUSMUNC13G – Install external service risers</li> <li>• EUSMUNC015A – Conduct specified testing of gas engineering products or assets – mains</li> <li>• EUSMUNC15B – Conduct specified testing of gas services</li> <li>• EUSMUNC16 – Conduct specified connection to gas network mains and commissioning</li> <li>• EUSMUNC19 – Restore gas components to operational condition by repair</li> <li>• EUSMUNC20 – Assess and minimise risks to life, property and the environment during gas escapes</li> <li>• EUSMUNC21 – Conduct specified testing of gas networks associated with leakage location</li> <li>• EUSMUNC22 – Analyse and interpret the results of surveys to determine the location of gas escapes</li> <li>• EUSMUNC23 – Disconnection of meters</li> </ul> <p><b>(proposed) Level 3/SCQF Level 6:</b></p> <ul style="list-style-type: none"> <li>• EUSGNC001 - Create an efficient and effective work environment for complex operations on gas network construction</li> <li>• EUSGNC002 - Create an efficient and effective work environment for complex operations</li> <li>• EUSGNC003 - Establish and maintain effective working relationships in complex situations for Gas Network Construction</li> <li>• EUSGNC004 - Install equipment for safe working in complex situations on the highway during gas network construction</li> <li>• EUSGNC006 - Locate and avoid supply apparatus in complex situations for gas network construction</li> <li>• EUSGNC007 - Excavate and maintain holes and trenches for</li> </ul>
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	<p>complex operations in gas network construction</p> <ul style="list-style-type: none"> <li>• EUSGNC008 - Reinstate excavation and pavement surfaces in complex situations for gas network construction</li> <li>• EUSGNC009 - Operate powered tools and equipment for routine and complex applications on gas network construction</li> <li>• EUSGNC010 - Joint materials by electrofusion processes for complex operations in gas network construction</li> <li>• EUSGNC011 - Joint materials by butt fusion processes in complex situations for gas network construction</li> <li>• EUSGNC012 - Install engineering products or assets for complex operations in gas network construction</li> <li>• EUSGNC013 - Conduct specified testing of gas network engineering products or assets in complex situations</li> <li>• EUSGNC014 - Conduct and commission specified connection to gas network mains in complex situations</li> <li>• EUSGNC015 - Determine technical requirements needed to achieve objectives in complex gas network construction</li> <li>• EUSGNC016 - Determine resource requirements needed to achieve objectives in complex gas network situations</li> <li>• EUSGNC017 - Plan engineering activities for complex gas network situations</li> </ul>
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<p><b>Workplace Observation</b></p>	<p><b>Level 3 Network Construction Operations (Water)</b></p> <p>The overall mix of evidence for the qualification must include workplace observation by an assessor; suggested tasks for observation are monitoring health and safety, signing, lighting and guarding and excavation</p> <p>The following qualifications contain a number of units and both workplace experience and naturally occurring evidence are required for each. A combination of direct observation by an assessor, witness testimony from operationally competent persons and evidence gathered in realistic work environment (RWE) is acceptable to establish that the learner meets all the criteria within the units.</p> <p>However, the following essential activities must be directly assessed <b>at least</b> once through workplace observation by an assessor:</p> <p>Level 2 Network Construction Operations (Gas) – Service layer  Level 2 Network Construction Operations (Gas) – Main layer  Level 3 Network Construction Operations (Gas)</p> <p>Level 2 Network Construction Operations (Water) – Service layer  Level 2 Network Construction Operations (Water) – Main layer  Level 2 Network Construction Operations (Water) – Repair and Maintenance  Level 3 Network Construction Operations (Gas)</p> <p><b>Level 2/SCQF Level 5_Network Construction Operations (Gas) – Service layer</b></p> <p>Installation of at least one gas service to a capped point, with a standard connection made to a main  The testing and purging of a service installation</p> <p><b>Level 2/SCQF Level 5_Network Construction Operations (Gas) – Main layer</b></p> <p>Installation of at least one section of gas main (for each pipe size category forming part of the qualification) to a valve or capped point, with a standard connection to the network  The testing and purging of a section of gas main</p> <p><b>Level 2 Network Construction Operations (Water) – Service layer</b></p> <p>Installing at least one water service, making the connection to the main and connecting to the property</p> <p><b>Level 2 Network Construction Operations (Water) – Main layer</b></p>
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	<p>Installing at least one water main and connecting to an existing network</p> <p><b>Level 2 Network Construction Operations (Water) – Repair and Maintenance</b></p> <p>Preparing and carrying out at least one repair and restoring it to an operable condition</p> <p><b>(Proposed) Level 3/SCQF Level 6 Network Construction Operations (Gas)</b></p> <p>Installation of at least one section of gas service or main (for each pipe size category forming part of the qualification) to a valve or capped point, with a standard connection to the network</p> <p>The testing and purging of a section of a gas service or main</p> <p>Managing one gas network operation to include resources and manpower planning, operational instructions and leadership</p>
<b>Independent Assessment</b>	<p>The awarding body will operate a system which ensures assessors will not assess candidates for whom they have line management responsibility or any unit for which they have been involved in training that candidate.</p>
<b>Realistic Work Environment (RWE)</b>	<p>All units can be assessed using observation in RWE; however a mixture of evidence from RWE and the workplace must be supplied for achievement of the units.</p> <p>Where the network and/or activities are being simulated, any pipework must be pressurised to a level consistent with the workplace and contain a suitable substance which replicates that which is contained in the workplace network. In addition the RWE must be constructed to replicate actual working environment as possible e.g. traffic flow, weather and ground conditions</p>
<b>New Roads and Streetworks Act (NRSWA) Observations</b>	<p>NRSWA observations can be used as evidence to contribute towards achievement of these units, however additional evidence from the workplace is required.</p>

#### Version Control

November 2015	Version 8.7 LP (replaces V8.6)	Updated to reflect the NOS codes with EUS included in the coding of the unit. Updated unit NCO321 with the latest CFA version. Updated EUSNCO303 with the latest version PROHSS1 . Updated some of the titles to reflect the full NOS
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