
Level 3 End-Point Assessment - Gas Network Craftsperson – Electrical and Instrumentation



EPA Specification Section 2 – Mapping the Standard

Contacts

This specification has been designed to provide all the advice and guidance you need to prepare yourself and your apprentices for end-point assessment. However, if you have any further questions please contact the EUIAS Help Desk using one of the following:

Help Desk email: enquiries@euias.co.uk

Help Desk telephone: 0121 713 8310

Purpose

The purpose of this section is to introduce the elements of the Standard and the referencing system used by the EUIAS. It provides an 'at-a-glance' view of which parts of the Standard are assessed by which assessment method. The referencing system is used throughout this Specification.

The Standard

The Standard is divided into Knowledge, Skills and Behaviours. It has:

- Core Knowledge
- Core Skills
- Core Behaviours
- Role Specific Skills
- Role Specific Knowledge

Core Knowledge:

CK1 Role specific knowledge company testing, and commissioning procedures needed to establish the condition of gas assets equipment, network infrastructure and the actions needed as a result of the tests. This includes both practical applications and the use of diagnostic techniques and IT systems

CK2 The requirements of the Gas Safety (Management) Regulations as relevant to their role, this being supported through company specific procedures involved in the practical installation and maintenance of gas network assets

CK3 The requirements of Health and safety standards and regulations, and environmental and regulatory requirements, including: The Health and Safety at Work Act, the Environmental Protection Act, Dangerous Substances Explosive Atmospheres Regulations, The ATEX Directives, The Management of Health and Safety regulations, PUWER, Working at Height Regulations, Confined spaces Regulations, COSHH, PPE Regulations, RIDDOR, Noise at work regulations, Control of Asbestos regulations and the Manual Handling Operations Regulations

CK4 Company maintenance practices, processes and procedures associated with gas network systems, controls and equipment

CK5 Gas engineering and mechanical and /or electric principles and processes that underpin the location, diagnosis and rectification of faults

CK6 Company policies, procedures and engineering instructions as specified by the employer

Core Skills:

CS1 Undertake and document risk assessments in accordance with company procedures

CS2 Comply with workplace health, safety & environmental practices and regulations, maintaining a safe and secure working environment

- CS3** Follow engineering instructions and company procedures to complete tasks safely and on-time
- CS4** Undertake inspection and examination of network assets in order to maintain the safe and compliant operation of the network to ensure the integrity, safety and security of supply
- CS5** Maintain and/or install gas engineering assets, components and associated equipment
- CS6** Install, test, purge and commission gas network assets
- CS7** Operate powered tools and equipment, such as drills, angle grinders, brush cutters and shot blasting equipment as required for network maintenance operations
- CS8** Use approved gas detection equipment to ensure safe environment
- CS9** Use Personal Protective Equipment (PPE) and safety equipment in accordance with manufacturer's instructions and employer policy
- CS10** Obtain and analyse asset condition and performance information to facilitate decision making
- CS11** Identify, organise and use resources effectively to complete tasks, with consideration for cost, quality, safety, security and environmental impact
- CS12** Through risk assessment, minimise risks to life, property and the environment when undertaking work activities
- CS13** Accurately record job information, complete job reports and process
- CS14** Liaise with gas consumers, statutory agencies and members of the public in order to ensure their safety
- CS15** Accurately update company systems with details of work undertaken

Core Behaviours

- CB1** Display a self-disciplined, self-motivated approach
- CB2** Deliver a polite, courteous professional service to all customers, stakeholders and members of the public as appropriate
- CB3** Demonstrate and apply a safety-first approach
- CB4** Accept accountability when undertaking individual and team tasks
- CB5** Follows instruction from appropriate supervision, and makes decisions when required
- CB6** Quality-focussed and professional in work and in personal standards
- CB7** Recognise personal limitations and seek advice from managers, experts and specialists when required
- CB8** Accepts responsibility for work undertaken
- CB9** Receptive to the needs and concerns of others, especially where related to diversity and equality

CB10 Committed to carrying out and recording Continued Professional Development necessary to maintain and enhance competence

CB11 Exercises responsibilities in an ethical manner

CB12 Interacts with people and approaches work activities in a way that contributes to continuous self improvement

Role Specific Skills – Electrical and Instrumentation

NMCEi1 Apply electrical theories and principles and use equipment to carry out diagnostic fault finding procedures

NMCEi2 Inspect, maintain, repair, overhaul test and calibrate instrumentation and control equipment and circuits in accordance with company procedures

NMCEi3 Maintain site lighting and fixed and portable equipment which may include generators, batteries and associated equipment

NMCEi4 Carry out cable testing across a range of voltages to ensure safety and suitability for use

NMCEi5 Install, maintain and dismantle instruments, controllers, probes, attachments, cabling, meters and display units

NMCEi6 Configure telemetry outstation and internal systems

NMCEi7 Identify and resolve data quality and calibration issues

NMCEi8 Test, calibrate and validate fixed and portable analogue and digital instrumentation using approved procedures and standards

NMCEi9 Repair, maintain, configure and calibrate field instrumentation, communication devices and associated equipment used in system and process control

NMCEi10 Use standards and specifications to improve the information gathered by telemetry data

NMCEi11 Inspect and maintain security equipment, telecommunication devices and alarm systems

NMCEi12 Carry out isolation procedures to ensure process or system stability and the safety of personnel when carrying out operations

NMCEi13 Provide support to day-to-day users of instrumentation and control systems

NMCEi14 Ensure consistent and valid data is available for business and regulation purposes

NMCEi15 Apply electrical knowledge and skills to install, maintain and dismantle a wide range of plant, machinery and components

Role Specific Knowledge– Electrical and Instrumentation

- NMCEi16** The safety processes to be applied when testing for voltages across the range likely to be encountered
- NMCEi17** The permitry requirements when maintaining or configuring telemetry systems or undertaking works that may initiate system alarms
- NMCEi18** Recognise the processes to be followed in order to identify and resolve data quality and calibration issues
- NMCEi19** Understand how to test and calibrate instrumentation and control equipment in accordance with company specific procedures
- NMCEi20** The theories used to maintain, test and calibrate electrical equipment in line with company specific procedures
- NMCEi21** Understand how to safely apply diagnostic fault-finding principles to electrical systems
- NMCEi22** Identify relevant, company specific procedures and know how to access such documentation
- NMCEi23** Legislative requirements affecting electrical works and be able to describe how such legislation may affect them
- NMCEi24** The hazards that could be encountered when maintaining both fixed and portable electrical equipment
- NMCEi25** Understand why safe isolation procedures must be followed when carrying out electrical or instrumentation operations

The Standard mapped to the assessment methods:

Knowledge and Skills Assessment:	Core knowledge (CK2; CK3; CK5)
	PLUS Selected core skill (CS12)
	PLUS Selected Electrical and Instrumentation - Specific knowledge (NMCEi16; NMCEi21; NMCEi23; NMCEi24; NMCEi25)
Technical Interview underpinned by the logbook:	Core knowledge (CK1; CK4; CK6) Part 2 – Focussing on the on-programme evidence in the logbook (CK1; CK4; CK6)
	Core skills (CS1; CS2; CS3; CS4; CS5; CS6; CS7; CS8; CS9; CS10; CS11; CS13; CS14; CS15) Part 1 - Focussing on the practical task evidence in the logbook (CS1; CS2; CS3; CS4; CS5; CS6; CS7; CS8; CS9; CS10; CS11; CS13) Part 2 - Focussing on the on-programme evidence in the logbook (CS1; CS2; CS3; CS14; CS15)
	Core behaviours (CB1; CB2; CB3; CB4; CB5; CB6; CB7; CB8; CB9; CB10; CB11; CB12) Part 1- Focussing on the practical task evidence in the logbook (CB1; CB3; CB4; CB5; CB6; CB8) Part 2 – Focussing on the on-programme evidence in the logbook (CB2; CB4; CB7; CB9; CB10; CB11; CB12)
	Part 1 - Focussing on the practical task evidence in the logbook (NMCEi1; NMCEi2; NMCEi4; NMCEi5, NMCEi9; NMCEi12; NMCEi15) Part 2 - Focussing on the on-programme evidence in the logbook (NMCEi3; NMCEi6; NMCEi7; NMCEi8; NMCEi10; NMCEi11; NMCEi13; NMCEi14; NMCEi17; NMCEi18; NMCEi19; NMCEi20; NMCEi22)