

# Industry Standards - Gas

## Gas Network Craftsperson

A gas network craftsperson has responsibility for the safe operation, maintenance and repair of the UK's gas network, to provide a safe and reliable supply of natural gas to the country. This involves working at various locations across a company's gas network. The occupation exists within an industry with a high level of safety critical activities, so there is a requirement for a disciplined and responsible approach to work. There are three specialisms within this occupation:

- Emergency response craftsperson (gas emergencies)
- Network maintenance craftsperson (electrical & instrumentation)
- Network maintenance craftsperson (pressure management)

To maintain the UK's gas supply each craft discipline requires craftspersons to work in outdoor environments in all-weather conditions to provide a 24 hour service.

A gas network craftsperson works to provide vital services to safely build, maintain and repair components of the UK's gas network infrastructure to provide a reliable supply of gas to domestic, commercial and industrial users. This role involves the building, maintenance and emergency repairs of the UK's gas network infrastructure, pipelines, pressure control and meters, thereby providing a safe and reliable supply of gas to domestic, commercial and industrial users.

## Emergency Response Craftsperson

The main role of gas emergency response personnel is to attend public reported gas emergencies, both inside and outside of property. The job title varies from network to network, the most recognised job titles being first call operative, first call engineer and emergency lead engineer.

Gas emergency response personnel are trained to a high standard and must have a disciplined and safety conscious approach when attending gas, gas related emergencies and reports of carbon monoxide which include carrying out detailed site investigations in relation to gas escapes and carbon monoxide; liaising with emergency services and other statutory authorities as necessary; and organising additional resources to facilitate repairs as required. In addition to responding to gas emergencies, the role also may involve responding to and dealing with “gas unsafe situations” and the installation of gas meters and regulators including tightness testing, purging, commissioning and de-commissioning of gas installation pipework at both domestic and small commercial premises. Gas emergency response personnel are Gas Safe™ registered.

Emergency response personnel generally work alone, but may work as part of a team where the gas escape is located outside. The work is varied from day to day and involves working with members of the public and working both inside and outside of property, in all weathers and at all times of the day.

Induction – Core Requirements (A)		
Unit Code	Title	Internal Ref
	<a href="#">Download all Induction Units here</a>	
IND02	Personal Safety	2912
IND03	Asbestos Awareness	2912
IND04	Emergency First Aid	2912
IND06	Fire Control	2912
IND07	Drug and Alcohol Awareness	2912
IND08	Equality and Diversity	2912
IND09	Customer Focus and Working with Others	2912
IND10	Security Asset (including IT) Protection	2912
IND12	Gas Industry Overview and Appreciation	2912
IND18	Gas Industry Specific Tools and Equipment	2912

Specialist Units (B) – all 17 of these must be taken		
Unit Code	Title	Internal Ref
ERM01	<a href="#">Understanding Health and Safety in Gas Utilisation</a>	2988
ERM02	<a href="#">Understanding Scientific Principles in Gas Utilisation</a>	2989

ERM03	<a href="#">Understanding Combustion Properties of Gas</a>	2990
ERM04	<a href="#">Understanding Buildings, Services and Structures</a>	2991
ERM05	<a href="#">Understanding Gas Safety</a>	2992
ERM06	<a href="#">Specific Core Metering</a>	2993
ERM07	<a href="#">Specific Core Emergency</a>	2994
ERM08	<a href="#">Install, Commission and Decommission Gas Pipework up to 35mm Diameter in Domestic and Small Commercial Premises</a>	2995
ERM09	<a href="#">Install Gas Meters and Regulators 2.5m to 16.0m<sup>3</sup>/hr</a>	2996
ERM10	<a href="#">Dealing with Reported Upstream Gas Emergencies</a>	2997
ERM11	<a href="#">Dealing with Reported Downstream Gas Emergencies</a>	2998
ERM12	<a href="#">Strength Testing, Gas Tightness Testing and Direct Purging – IGE/UP/1A</a>	2999
ERM13	<a href="#">Tightness Test, Purge, Commission, Decommission Gas Pipework up to 35mm Diameter in Small Natural Gas Installations</a>	3000
ERM14	<a href="#">Install Gas Meters and Regulators at 40.0m<sup>3</sup>/hr</a>	3001
ERM15	<a href="#">Install, Commission and Maintain Medium Pressure Meter Regulators</a>	3002
ERMSW1	<a href="#">Location and Avoidance of Underground Apparatus</a>	3003
ERMSW2	<a href="#">Signing, Lighting and Guarding</a>	3004

Additional Optional Units		
Unit Code	Title	Internal Ref
ERAO01	<a href="#">Safety, Health and Environmental Awareness (SHEA) Downstream Gas</a>	2985
ERAO02	<a href="#">Install and Commission Low Pressure Natural Gas Smart Meter and Regulator up to 6.0m<sup>3</sup>/hr</a>	2986
ERAO03	Install Gas Meters and Regulators >40m <sup>3</sup> /hr to 1076m <sup>3</sup> /hr	

## Network Maintenance Craftsperson (Electrical & Instrumentation)

The main role of a network maintenance craftsperson (electrical & instrumentation) is to install, maintain and repair either electrical or instrumentation equipment that is used for the safe and efficient operation of the United Kingdom's gas network. The job title varies from network to network.

Network maintenance craftspersons (electrical & instrumentation) are trained to a high standard and must have a disciplined and safety conscious approach when attending gas operational sites to work on either electrical or instrumentation systems.

As the role involves working on electrical or instrumentation systems the craftsperson must have the necessary skills and knowledge to work on such systems and satisfy all statutory requirements for working on such systems. This includes the requirement for the installation and operation of electrical and instrumentation systems in potentially hazardous atmospheres.

Network maintenance craftspersons (electrical & instrumentation) generally work alone, but may work as part of a team where the work is complex in nature or in situations when working with network maintenance craftspersons (pressure control). The work is varied from day to day and involves working on gas operational sites, both inside and outside of property, in all weathers and at all times of the day.

Induction - Core Requirements (A)		
Unit Code	Title	Internal Ref
	<a href="#">Download all Induction Units here</a>	
INDPM01	Health Safety and the Environment	2911
IND02	Personal Security / Lone Working	2911
IND03	Asbestos Awareness	2911
IND04	Emergency First Aid	2911
IND06	Fire Control	2911
IND07	Drug and Alcohol Awareness	2911
IND09	Customer Focus and Working with Others	2911
IND10	Security Asset (including IT) Protection	2911
IND12	Gas Industry Overview and Appreciation	2911
IND18	Safety, Health and Environmental Awareness (SHEA) (revised 2014)	2911
IND19	Industry Specific Equipment	2911
EMG2	Statutory and Company Requirements	2911
EMG3	Operational Site Familiarisation	2911

EMG4	Safe Working Practices	2911
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Specialist Units (B) – all 22 of these must be taken		
Unit Code	Title	Internal Ref
EIM01	<a href="#">Complying with Statutory Regulations and Organisational Safety Requirements</a>	2962
EIM02	<a href="#">Using and Interpreting Engineering Data and Documentation</a>	2963
EIM03	<a href="#">Installing Pipes and Conduits Using Hand Fitting Techniques</a>	2964
EIM04	<a href="#">Wiring and Testing Electrical Equipment and Circuits</a>	2965
EIM05	<a href="#">Health and Safety in Engineering</a>	2966
EIM06	<a href="#">Communications for Engineering Technicians</a>	2967
EIM07	<a href="#">Project Work</a>	2968
EIM08	<a href="#">Features and Applications of Electrical Machines</a>	2969
EIM09	<a href="#">Handing Over and Confirming Completion of Maintenance or Installation Activities</a>	2970
EIM10	<a href="#">Hazardous Area Awareness</a>	2971
EIM11	<a href="#">Mathematics for Technicians</a>	2972
EIM12	<a href="#">Electrical and Electronic Principles</a>	2973
EIM13	<a href="#">Business Operations</a>	2974
EIM14	<a href="#">Engineering Design</a>	2975
EIM15	<a href="#">Selecting and Using Programmable Controllers</a>	2976
EIM16	<a href="#">Principles and Applications of Electronic Devices and Circuits</a>	2977
EIM17	<a href="#">Electrical Technology</a>	2978
EIM18	<a href="#">Electrical Installation</a>	2979
EIM19	<a href="#">The Safe Use and Operation of Electrical Equipment - IEE 17th Edition</a>	2980
EIM20	<a href="#">Panel Wiring</a>	2981
EIM21	<a href="#">SCO 1&amp;2 CP</a>	2982
EMG1	<a href="#">COMPEX</a>	2983

A minimum of 8 of the specialist additional units below must be completed. The units selected must be applicable to the occupational role, either instrumentation or electrical:

Specialist Additional Units - C		
Unit Code	Title	Internal Ref
EIAU01	<a href="#">Control Valves</a>	2940
EIAU02	<a href="#">Gas Quality - Odourisation</a>	2941
EIAU03	<a href="#">Programme Logic Controllers</a>	2942

EIAU04	<a href="#"><u>Maintaining and Testing Process Instrumentation and Control Devices</u></a>	2943
EIAU05	<a href="#"><u>Carrying Out Fault Diagnosis on Instrumentation and Control Equipment and Circuits</u></a>	2944
EIAU06	<a href="#"><u>Maintaining Instrumentation and Control Equipment Circuits</u></a>	2945
EIAU07	<a href="#"><u>Carrying Out Preventative Planned Maintenance on Instrumentation and Control Equipment</u></a>	2946
EIAU08	<a href="#"><u>Testing and Calibrating Instrumentation and Control Equipment and Circuits</u></a>	2947
EIAU09	<a href="#"><u>Pre-heater Control Systems</u></a>	2948
EIAU010	<a href="#"><u>FWACV</u></a>	2949
EIAU011	<a href="#"><u>SCO 4 – Non-routine Operations CP</u></a>	2950
EIAU012	<a href="#"><u>Maintaining Electrical Systems</u></a>	2951
EIAU013	<a href="#"><u>Maintaining Electronic Equipment and Systems</u></a>	2952
EIAU014	<a href="#"><u>The Initial Verification and Certification of Electrical Installations</u></a>	2953
EIAU015	<a href="#"><u>The Periodic Inspection and Certification of Electrical Installations</u></a>	2954
EIAU016	<a href="#"><u>Carrying Out Fault Diagnosis on Electrical Equipment and Circuits</u></a>	2955
EIAU017	<a href="#"><u>Modifying or Rewiring Electrical Circuits</u></a>	2956
EIAU018	<a href="#"><u>Testing Electrical Equipment and Circuits</u></a>	2957
EIAU019	<a href="#"><u>Carrying Out Planned Maintenance on Electrical Equipment</u></a>	2958
EIAU020	<a href="#"><u>Conditioning Monitoring</u></a>	2959
EIAU021	<a href="#"><u>High Pressure Metering</u></a>	2960
EIAU022	<a href="#"><u>Maintaining Electrical Equipment</u></a>	2961



## Network Maintenance Craftsperson (Pressure Management)

The main role of a network maintenance craftsperson (pressure management) is to install, maintain and repair pressure control equipment that is used for the safe and efficient operation of the United Kingdom's gas network. The job title varies from network to network. Network maintenance craftspersons (pressure management), are trained to a high standard and must have a disciplined and safety conscious approach when attending gas operational sites to work on pressure management and control systems.

As the role involves working on low, medium, intermediate and high-pressure natural gas systems the craftsperson must have the necessary skills and knowledge to work on such systems and satisfy all statutory requirements for working on such systems.

Network maintenance craftspersons (pressure management) generally work in a two-person team, but may also work alone as deemed necessary. The work is varied from day to day and may involve working on gas operational sites, adjacent to roadways and at consumers premises, this could be either inside or outside of buildings, in all weathers and at all times of the day.

Network maintenance craftsperson (pressure management):

- Induction unit (A) (12 modules)
- **12 mandatory (M)** units from specialist group B
- **10 additional** units from specialist group C
- Additional optional units from specialist group D

Induction - Core Requirements (A)		
Unit Code	Title	Internal Ref
	<a href="#">Download all Induction Units here</a>	
INDPM01	Health Safety and the Environment	2256
IND18	Safety, Health & Environmental Awareness (GAS SHEA)	2256
IND02	Personal Security / Lone Working	2256
IND03	Asbestos Awareness	2256
IND04	Emergency First Aid	2256
IND07	Drug and Alcohol Awareness	2256
IND09	Customer Focus and Working with Others	2256
IND12	Gas Industry Overview and Appreciation	2256
IND10	Security Asset (including IT) protection	2256
IND20	Hazardous Area Awareness	2256
IND06	Fire Control	2256
IND19	Industry Specific Equipment	2256

Specialist Units (B) – all 12 of these must be taken		
Unit Code	Title	Internal Ref
PMM01	<a href="#">Complying with Statutory Regulations and Organisational Safety Requirements</a>	3022
PMM02	<a href="#">Using and Interpreting Engineering Data and Documentation</a>	3023
PMM03	<a href="#">Forming and Assembling Stainless and Carbon Steel Pipework</a>	3024
PMM04	<a href="#">Maintaining Mechanical Devices and Systems</a>	3025
PMM05	<a href="#">Health and Safety in Engineering</a>	3026
PMM06	<a href="#">Communications for Engineering Technicians</a>	3027
PMM07	<a href="#">Mathematics for Technicians</a>	3028
PMM08	<a href="#">Mechanical Principles</a>	3029
PMM09	<a href="#">Business Operations</a>	3030
PMM10	<a href="#">Engineering Design</a>	3031
PMM11	<a href="#">Project Work</a>	3032
PMM12	<a href="#">Handing Over and Confirming Completion of Maintenance or Installation Activities</a>	3033

A minimum of 10 of the specialist additional units below must be completed:

Specialist Additional Units (C)		
Unit Code	Title	Internal Ref
PMA1	<a href="#">High Pressure Valves and Valve Maintenance</a>	3010
PMA2	<a href="#">Below Ground Gas Control Modules</a>	3011
PMA3	<a href="#">Gas Conditioning Techniques</a>	3012
PMA4	<a href="#">Pre-heat Boilers and Water Bath Heaters</a>	3013
PMA5	<a href="#">SCO 1&amp;2 CP</a>	3014
PMA6	<a href="#">Signing, Lighting and Guarding</a>	3015
PMA7	<a href="#">Operation and Maintenance of Pressure Regulators and Control Equipment (below 7 bar)</a>	3016
PMA8	<a href="#">Operation and Maintenance of High Pressure (above 7bar) Regulators and Control Equipment</a>	3017
PMA9	<a href="#">Gas Pressure Control - Profile Systems</a>	3018
PMA10	<a href="#">Safe Isolation of Gas Systems &gt;2bar</a>	3019
PMA11	<a href="#">SCO 4 – Non-routine Operations CP</a>	3020
PMA12	<a href="#">VS02 Visual Inspection</a>	3021

Specialist Additional Optional Units		
Unit Code	Title	Internal Ref
PCAO1	<a href="#">SCO5 – Routine Operations</a>	3006



PCAO2	<a href="#">Location and Avoidance of Underground Apparatus</a>	3007
PCAO3	<a href="#">Working at Height - Scaffolding - Erection and Inspection</a>	3008
PCAO4	<a href="#">Producing Components Using Hand Fitting Techniques</a>	3009