

OPITO Accredited Authorised Gas Tester

Course information

The Authorised Gas Tester Standard provides delegates with an understanding of:

- a) What is required for those involved with performing a test for oxygen, flammable and toxic gases up to and including working in confined spaces
- b) What is required for those involved with testing for flammable gas in preparation for hot work
- c) What is required for those who provide safety watch duties by the ongoing monitoring of a hot work site and confined space standby duties

The course consists of two days classroom based training with an assessment and an on-site practical example (*if available*)

Learners will be provided with all the necessary documentation and manuals

Learners will require relevant PPE for the practical element of the course

All personnel who participate in gas testing training must be physically and mentally capable of participating fully

Course syllabus

The course contains the following modules:

- Unit 1 - Authorised gas tester
- Unit 2 - Testing for flammable gas
in preparation for hot work
- Unit 3 - Confined space testing
- Unit 4 - Gas monitoring



For detailed learning outcomes of each unit, please see overleaf

The duty holder/employer is responsible for ensuring that personnel appointed to the Authorised Gas Tester role have received sufficient training and gained relevant experience to undertake the role(s) competently and safely. The duty holder/employer must ensure that, apart from the provision of theory training, that further workplace training is provided and workplace competence assessment is conducted prior to formal appointment.

For further information or to arrange a course, please contact JMS Consultants on 01472 720158 or at postbox@jmsconsultants.co.uk

Unit 1 - Authorised Gas Tester

- *Confined space criteria, to include: The definition of a confined space as per National Regulations and Approved Codes of Practice (ACOPs), Not designed for continuous worker occupancy*
- *The type of operations being tested for flammable and toxic gases*
- *The potential cumulative hazards of operations within an oxygen-enriched, oxygen-deficient, toxic or flammable environment and habitats*
- *Carrying out a suitable and sufficient risk assessment before testing activities and confined space entry*
- *Understanding responsibilities within safe systems of work, to include: Entry permits, Formal rescue plan, Ventilation, Testing and continuous monitoring of the air and Communications*
- *Nominating stand by person to raise the alarm and initiate emergency response*
- *The implications of statutory requirements with respect to gas testing - to include: Legislation, Codes of practice, Manufacturers, Instructions and Company instructions*
- *How to interpret operational requirements - to include: policies, procedures, instructions and codes of practice and standards*
- *How to select, use and care for PPE for different toxic and flammable gases and other contaminants through risk assessment*
- *Consideration of appropriate levels of respiratory protective equipment*
- *How to work within the Safe System of Work*
- *The strengths and weaknesses of the various types of atmospheric flammable and toxic gas detection equipment - to include: transportable, portable and personal monitors and FLIR (Forward Looking Infra-Red) cameras*
- *Determining the extent of the test boundaries*
- *Calibrating the instruments used in atmospheric testing*
- *Sources of assistance in the event of damaged or defective equipment*
- *How to access and interpret the relevant operational instructions*
- *The operating principles of atmosphere monitoring and measuring equipment*
- *Frequently observed failure modes*
- *How to correctly select between aspirating and non-aspirating detectors to obtain a representative sample of the atmosphere being tested*
- *Equipment required for testing for hydrocarbons in inert atmospheres*
- *Gas detector pre-start checks*
- *How to document the results and advise relevant personnel*
- *How to interpret the results, to include both normal and abnormal*

Unit 2 - Testing for flammable gas in preparation for hot work

- *Hot work (any operation involving naked flames or producing heat and/or sparks or any operation that has spark potential)*
- *The type of operations being tested for flammable and toxic gases*
- *The hazards and properties of flammable gases – to include: gas and vapour cloud movement*
- *Carrying out a suitable and sufficient risk assessment before testing activities*
- *Understanding responsibilities within safe systems of work including: ensuring safety and security of site, testing and continuous monitoring of the air and communications*
- *Nominating fire watcher(s) to raise the alarm and initiate emergency response*
- *The different types of detectors used for the flammable product*
- *The range and frequency of tests*
- *Monitoring and retesting requirements*
- *The principles of hot work gas testing as applied to the work area*
- *The acceptable levels of flammable gases*
- *The correct amount of oxygen*
- *How to set up the relevant detector for each gas testing application and confirm its correct functioning*
- *Where to site portable or transportable equipment that will be used to continuously monitor the atmosphere*

Unit 3 - Confined space testing

- *The hazards and properties of flammable and toxic gases including: oxygen deficiency and enrichment, nitrogen and specialist materials appropriate to the location*
- *The behaviour of different gases – to include: heavier than air behaviour, lighter than air behaviour and “neutral buoyancy” effect*
- *The range and frequency of tests and monitoring and retesting after the initial entry*
- *Acceptable levels of flammable and toxic gases and the correct amount of oxygen*
- *The implications of WEL for toxic gases*
- *The implications of LEL for flammable gases*
- *Performing gas tests in sequence*
- *How to set up the relevant detector for each gas testing application, its potential failure modes and confirming its correct functioning*
- *How to obtain a representative atmosphere sample from a range of confined spaces*
- *Taking samples at the top, middle and bottom to locate varying concentrations of gases and vapours*
- *Sampling confined spaces at a distance inside the opening because air intrusion near the entrance can give a false sense of adequate oxygen present*
- *Testing flammable gases in inert atmospheres*
- *Where to site portable or transportable equipment that will be used to continuously monitor the atmosphere*

Unit 4 - Gas monitoring

- *Hotwork definition including any operation involving naked flames or producing heat and/or sparks or any operation that has spark potential*
- *Confined space criteria*
- *The type of operations being tested for flammable and toxic gases*
- *Responsibilities of the Fire Watch*
- *Responsibilities of the Stand By person*
- *Responsibilities of the Gas Monitor role*
- *How to use and care for PPE for different toxic and flammable gases through risk assessment*
- *How to work within the Safe System of Work*
- *The hazards and properties of flammable and toxic gases*
- *The behaviour of different gases – to include heavier than air & lighter than air behaviour and “neutral buoyancy” effect*
- *How a flammable gas or vapour clouds could arrive at the hot work site*
- *Impact of environmental changes on working conditions*
- *The importance of regular communication*
- *Sources of assistance and specialist support*
- *Completion of relevant documentation*
- *The importance of checking that the controls on the equipment are as specified*