EUSDSG2

Control, monitor and rectify reported downstream gas emergencies

Overview

This standard is about identifying, controlling, monitoring and rectifying reported downstream gas emergencies. This standard applies to gas escapes that take place between the emergency control valve/ meter and appliances within industrial, commercial or domestic premises.

It can apply to any type of fuel gas or combinations of fuel gas including, but not restricted to, natural gas, LPG, blended or 100% hydrogen.

This standard does not imply that there is one sequential method of responding to reported gas emergencies. The nature of gas escapes are unpredictable and need to be dealt with on an individual basis. These activities are carried out to protect life and property, secure the escape and leave the site safe.

This standard can be used in conjunction with:
•EUSDSG14 Carry out gas tightness testing and check system safety in small settings

This standard is for emergency first responders in the gas industry.

Performance criteria

You must be able to:

1.Proceed to reported emergency situations without delay to meet minimum response standards, reporting arrival on site to appropriate people
2.Confirm received job information with emergency dispatch control centre and the person reporting emergencies to ensure you have complete, accurate and up-to-date information to assist in effective location and isolation of emergencies
3.Check all work and personal protective equipment, test equipment and tools necessary for all stages of the work is available, in date, correctly calibrated, safe to use and fit for purpose
4.Carry out site-specific risk assessments, establish and maintain a safe working area and work safely at all times in accordance with health, safety, environmental and other regulations and requirements, approved industry practices and procedures and organisational policies
5.Survey work sites and building fabric for any existing damage or defects and protect them against any further damage being caused during emergency work, recording findings and advising property owners of any defects in line with company procedures
6.Liaise with and update emergency dispatch control centre, emergency services, HSE, property occupiers and other people affected at key stages throughout gas emergencies
7.Respond to reports of asphyxiation, gassing or fumes and carry out necessary test and checks to industry requirements, summoning assistance in the event of incidents and fatalities
8.Take appropriate action to preserve evidence and report any injuries or dangerous occurrences
9.Summon additional resources and support from services and authorities when required in response to incidents
10.Establish positions and locations of gas supplies and other services and utilities, accessing maps of gas systems where applicable
11.Force entry to locked or unoccupied properties in line with company and industry procedures
12.Check for, and record, visual signs, smells, and gas ingress from internal spaces, voids, and around properties and from incoming services and utilities in accordance with industry standards and procedures
13.Take and record appropriate internal and external gas, carbon monoxide, carbon dioxide and other atmosphere samples in all adventitious openings in accordance with industry standards and procedures
14.Undertake site surveys to determine the location, extent and levels of gas escape, carbon monoxide or carbon dioxide and assess and record the severity of hazards and emergency implications for people and property
15.Categorise outcomes of site surveys and agree actions required for escape prioritisation of any unsafe situations in consultation with senior person on site in accordance with industry standards and procedures
16.Take prompt action to evacuate people, create safety zones, isolate gas and electricity supplies, eliminate actual and potential sources of ignition, place fire extinguishers ready and ventilate properties as appropriate in line with findings and industry procedures
17.Take precautionary steps to prevent unauthorised re-entry to evacuated areas by using barriers, tape and warning signs
18.Hand over all job information and evidence gathered from worksites
to engineering repair teams when escapes are found to be upstream emergencies
19.Monitor, recheck and record concentration levels of gas, carbon monoxide, carbon dioxide and

other gases both inside and externally around properties or work sites at regular intervals during and after the repairs have been carried out, before leaving the site and before authorising re-occupation
20.Carry out permanent repairs where practicable and achievable within a thirty minute job duration in line with industry procedures
21.Leave faults in a safe condition and hand over to engineering repair teams in line with industry procedures when it has not been possible for you to make permanent repairs
22.Use designated safe isolation methods, tests, and procedures to disconnect and label unsafe gas appliances, gas systems and components and cap off gas supply using the correct fittings
23.Use tightness testing and purging and safe isolation procedures to confirm the integrity of systems and appliances
24.Check gas system operating pressures meet industry standards
25.Use industry standard checks to confirm combustion performance
26.Use industry standard checks and testing procedures to confirm ventilation is present and free from blockage
27.Use appropriate test equipment to check gas appliances, systems and components function safely and operate in accordance with manufacturers' instructions
28.Resolve problems within own area of responsibility and competence in accordance with approved procedures
29.Complete and submit all relevant documentation and paperwork of test results and actions taken using company reporting systems and documentation, and in accordance with statutory requirements in line with industry standards, leaving a copy for the home dweller
30.Report any interruptions to gas supplies, poor pressures, delays to the work, unresolved problems, unsafe situations and required remedial actions to those who require the information
31.Establish and confirm that work sites are safe to leave following repair or when no leak was detected in line with industry procedures

Knowledge and understanding

You need to know and understand:

1. Regulations and guidance governing health and safety in the workplace, environmental protection and the use of risk assessments including safe access, working at height, lone working and working in confined spaces

2.Legislation covering your general responsibilities for your own safety and that of others and the limits of your own autonomy and responsibility

3.Gas industry unsafe situations procedures including concern for safety, at risk, preserving evidence of and reporting injuries and dangerous occurrences and how to isolate unsafe gas appliances, gas systems and components
4.Your health and safety obligations including assessing and prioritising hazards, taking action to minimise risks in order of priority, monitoring effectiveness of risk control measures, re-assessing risk on a regular basis and recording hazards
5.Information to be included in site-specific risk assessments including gas, carbon monoxide, carbon dioxide or oxygen levels, emergencies, access to the work site, movement of the workforce, members of the public, and the movement and safe storage of materials, tools and equipment for the job
6.Industry practices, procedures, precautionary measures and actions to make safe identified hazards within a potentially gaseous environment including; minimising risk of ignition, minimising escapes, evacuation of property and adjacent property, forced entry, minimising escapes, creating safety zones, positioning of vehicles and equipment, use of temporary continuity bonds, preventing smoking, having fire extinguishers ready, utilising all appropriate PPE and safety equipment, wetting the work area and maximising ventilation in all voids, ducts, drains, cellars
7.Information to include in a site survey including type of gas, controlled or uncontrolled, spread and level of gas, carbon monoxide, carbon dioxide and other gas concentrations and readings, whether the escape is external to properties or tracking internally into them, location of nearest properties, location of confined spaces, presence of other utilities where gas can track, presence of ignition sources, the level of ventilation, any electrical concerns, availability and access to isolation method, gas pipe material, any escape history, any visual signs of previous work, no trace results
8.The range of places from where gas samples should be collected, both high and low, including in voids, drains, ducts, sewers, cellars, telecommunication ducts, in or around plant and street furniture, in or around governor housings and chambers
9.Industry practices, work standards routines and sequences for dealing with gas escapes, gas incident investigations and other emergencies
10.Methods of working which protect the building, customer property and existing gas systems, appliances and components
11.The range of tools, test and other equipment and materials required, procedures for ordering, supplying, checking and delivery and steps to take if they are not available including gas detection equipment, personal protective equipment, electric detection equipment and equipment for installation and repair
12.Care, maintenance and storage requirements of tools and equipment, and checks for safe

condition including the purpose of PAT testing
13.The characteristics and properties of LPG and other gases
14.The company standards of service for attending uncontrolled and controlled gas escapes and faulty meter jobs
15.Industry standards, safety schemes, regulations, practices and procedures for carrying out downstream gas emergency activities including reported gas escapes, reporting injuries and dangerous occurrences, emissions of carbon monoxide, carbon dioxide and other fumes from gas appliances, fire or explosion, loss or interruption to gas supply, poor pressure reports at non domestic properties, suspected theft of gas, no trace situations including re-checks, birds and animals behind appliances, lack of access or no access to properties
16.Regulations and their implementation related to rights of entry and its implementation including; accessing properties, notification to emergency dispatch control centre and line manager and the implications
17.The industry practices and procedures for escalation of gas escapes including when, how and who to report to, re-occupation of properties following evacuations, identifying and responding to gas clouds, responding to interruptions to gas supplies and poor pressure reports, assessing emergency implications, undertaking hazard assessments and agreeing action to be taken
18.The industry practices and procedures for supplying alternative heating and cooking appliances where the conveyance of gas to a property is discontinued
19.How to interpret building regulations and plans for domestic and small commercial properties including types of foundations, walls, floors, ceilings, roofs and other services entering properties
20.How and where to access and interpret normative documents, guidance documents, industry standards and company procedures for downstream gas emergency activities
21.Potential sources of ignition including street lighting, electric street signs, motor vehicles, balanced flue chimneys, electric switches, mobile phones, overhead power lines, doorbells, entry systems
22.Procedures, precautionary measures and actions to be taken within a potentially carbon monoxide, carbon dioxide environment including short term and long term exposure limits, effects and symptoms of carbon monoxide, key advice to be given to people affected by fumes, gaseous monitors, how to record readings, alarm operations; evacuation, forced entry and maximisation of ventilation
23.Safe isolation methods, tests, and procedures for temporary and permanent de-commissioning of gas and electricity systems, components and appliances including use of temporary continuity bonds, non-contact voltage detectors
24.Measures to prevent un-commissioned and de-commissioned appliances or systems being brought into operation
25.Key information to communicate with emergency dispatch control centre including to confirm job information on receipt of job, if unable to attend reported emergencies in sufficient time, to keep informed of situation on site and all ongoing information, both during and after location of gas emergencies
26.Points in the downstream gas emergency activities where co- operation and liaison with emergency services, other trades and property occupiers may be required
27.The procedures, routines, sequences and work methods for exchanging emergency control valves (ECV's) and meter inlet control valves (MIV's), installing Natural Gas meters and gas meter housings and compartments, installing and jointing of open-flues chimney systems and room-sealed appliances, re-connecting to gas input services, connecting components to gas systems, re-commissioning gas systems and appliances, tightness testing and purging of gas systems and components

28.How to record the results of testing activities and actions taken using company reporting systems and documentation, in accordance with statutory requirements for all downstream gas emergency activities
29.Tests and checks to confirm the integrity, suitability and performance of chimneys and ventilation systems
30.Tests, checks, appropriate test equipment and how to use it to confirm the suitability of gas combustion performance and operating pressure of gas systems and components
31.Industry practices, procedures and criteria for site handover and to establish and confirm that the site is safe to leave after the repair work has been carried out
32.The statutory requirements for recording the results of testing activities and actions taken and, using company reporting systems and documentation
33.Job management structures and methods of reporting and recording job progress or problems delaying
34.How to safely collect and dispose of system contents that may be hazardous to health or the environment

EUSDSG2

Control, monitor and rectify reported downstream gas emergencies

Developed by	Energy & Utility Skills
Version Number	3
Date Approved	01 Jan 2022
Indicative Review Date	01 Jan 2025
Validity	Current
Status	Original
Originating Organisation	Energy & Utility Skills
Original URN	EUSDSG3.16
Relevant Occupations	Emergency First Responders
Suite	Downstream Domestic Gas Installation and Maintenance
Keywords	dealing, reported, gas, downstream, utilisation, emergency, emergencies, utility, utilities