

## Joint Gas Network Guidance on LGT Odourisation at Network Entry Points

The guidance below has been developed and agreed by Cadent, NGN, SGN and WWU.

### Introduction

This document's purpose is to provide an outline on Local Gas Treatment (LGT) odourisation equipment. The ENA are issuing this guidance in response to a series of odourant spillages on third party operated biomethane sites. This document is intended to be used as a guide only and reference must be made to the relevant standards and regulations. Cadent, NGN, SGN and WWU are a licensed gas transporters and have obligations under Statute License Conditions and Uniform Network Code for the management of the quality and quantity of gas conveyed on their networks, and network entry agreements at the relevant connections to their networks shall ensure that these obligations are satisfied.

### Odorant Injection

Odorant injection systems are typically installed on larger gas installations than those located on a network entry facility (biomethane, on shore gas etc). However, the system needs to be designed and operated in accordance with the same principles of any typical odorant facility and must comply with the methodologies set out in the [IGEM/SR/16](#) Odorant Systems for Gas Transmission and Distribution standard.

Odourisation of gas is a requirement under the [Gas Safety \(Management\) Regulations \(GS\(M\)R\)](#), which state that "the gas shall have been treated with a suitable stenching agent to ensure that it has a distinctive and characteristic odour". This ensures that any unintended release of a gas from a leak or any other means can be easily detected.

The chemicals used as the stenching agent are normally a mixture of Tertiary Butyl Mercaptan (TBM) and Dimethyl Sulphide (DMS). If these chemical compounds are incorrectly managed this can be extremely hazardous. These chemical compounds are highly flammable in liquid or vapour form. TBM and TBM-containing stenching agents will also cause serious irritation to eyes, nostrils, and skin, and are incredibly toxic to marine life causing long-term effects should they enter a water course/body of water.

Due to these factors, specialist knowledge is required for the maintenance and proper use of LGT equipment. It is essential that robust procedures are in place. These procedures must be readily available on-site for staff to reference. All personnel involved in the running of the network entry facility must be aware of how to properly deal with an emergency including Control of Substances Hazardous to Health (COSHH) data sheets and notices.

### Odorant Management

Maintenance activities on the LGT equipment may have an impact on the safety of your staff, the public and the local environment. It is important that proper management and procedures are put in place, and that all staff involved in site operations are properly briefed. Any works carried out on the LGT odourisation or associated equipment must be completed by competent personnel.

As you will be storing the odorant, which is a highly flammable liquid, on your site certain precautions must be taken. Guidance on this can be found in [HSG140 'Safe use and handling of flammable liquids'](#) and [HSG51 'Storage of flammable liquids in containers'](#), and supplements the advice contained in the [Dangerous Substances and Explosive Atmospheres Regulations \(DSEAR\)](#). You may also wish to refer to the Materials Safety Data Sheets (MSDS) for each type of odorant.

An odorant leak or spill can be misidentified by the public as a gas escape which will require gas network engineers to attend and identify the cause of the PRE. Due to the potency of the chemical compounds used; odorant escapes will be detected by people from significant distances. This can be averted by the immediate and proper use of a masking agent or other mitigation; therefore, it is essential that an odorant spill kit is kept and maintained on your site to respond to an odorant leak/spill. It's important to remember that odorant escapes or spillages that go untreated or unreported have the potential to disguise the danger of a real gas emergency.

All odorant spillages/leaks and/or gas escapes must be reported immediately to the National Gas Emergency Centre and to your network control centre. Be ready to provide: full address, contact name, phone number, email address of the site control centre, detail of an on-call operational supervisor or person dealing with the spill, volume of spill, and whether the spill is ongoing or contained.

National Gas Emergency Centre: 0800 111 999

### Spill Kit

The spill kit must contain items sufficient to deal with a minor leakage/spillage only. If a major spillage should occur procedures should be in place to manage and contain the spill until specialist help can arrive.

The table below provides a guide as to what items to include and the quantity required inside the spill kit. However, the kit should be tailored to suit the specific needs of your site. Attention should also be paid to any expiry dates of the equipment contained within the spill kit, especially the odour masking agent.

Item	Quantity (minimum)
Yellow Bag/Bin labelled "SPILL KIT"	1
Absorbent Boom (3m*)	1
Absorbent Pads (500mm x 400mm*)	10
Heavy grade clear plastic bags (various – small, medium, large)	10
Odour Masking Agent (liquid bottle)	1
Disposable Overalls	1
Safety Glasses	1
Zip ties	10
Rubber gloves (pair)	1
Neoprene Drain Cover (needed if drains are in the immediate area)	1

\* All sizes are for guidance only and will change in line with what is available.

## Personal Protective Equipment (PPE)

Personnel attempting to deal with any liquid odorant spillage must wear the correct personal protective equipment (PPE). This must be included as part of the spill kit. Any damaged PPE should not be used and must be replaced immediately.

## Emergency Procedures

It is advisable that you have procedures in place for Spillage Control, Emergency Isolation and Fire. Please note that in the event of a liquid odorant fire the following is useful information:

- a) Move to a safe distance, restrict access to affected area, and call the fire service (999). For Odorant NB, quote reference 'UN 3336' to help the fire service identify the chemicals in the fire. For dilute odorant, quote reference 'UN 1993'.
- b) Advise the National Gas Emergency Call Centre and the SGN Gas Control Room in your region that there is a gas odorant fire at your facility.

An additional consequence of a fire involving odorant would be the generation of Sulphur Dioxide (SO<sub>2</sub>) fumes which are toxic. These fumes can cause irritation to the eyes, nose, throat and in a high enough dosage can be fatal. While these fumes would be most prevalent close to the fire, they are expected to be diluted as they travel away or upwards from the fire. Breathing apparatus must be used if there is a risk of inhalation of fumes. No off-site casualties should arise from the fumes, although they may cause short-term acute effects downwind.

## Further Information

If you have any questions or would like any further information or assistance, please contact your Gas Distribution Network.

<b>Gas Quality Team email addresses:</b>
FWACV.SustainableGas@cadentgas.com
GasQualityEnquiries@northerngas.co.uk
gasquality@sgn.co.uk
gasquality@wwutilities.co.uk