The Gas Industry Unsafe Situations Procedure – Edition 6

Guidance for dealing with unsafe situations and non-compliance with current standards and procedures in domestic and non-domestic premises supplied with natural gas or liquefied petroleum gas

Amendments to GIUSP Edition 6 – issued since publication – 1 April 2009 AMD 1
Amendments to the GIUSP which were first published 1 October 2009 are included in this Procedure.
Amendments to GIUSP Edition 6 – issued since publication – 1 April 2009 AMD 2
Further amendments to the GIUSP were published 1 February 2011, which come into effect 1 April 2011. However, this should not restrict Gas Safe registered businesses from applying the specification sooner. The amendments which should not be read in isolation apply to Table 1 of GIUSP and should be read in conjunction with the appropriate areas of Table 1 in the published GIUSP. For details of the amendments, see **Appendix 8** of this document. The following indicator "**see AMD2 02.11**" has been placed against the particular situations in Table 1 of this procedure for which the amendments apply.

1 April 2011

DEALING WITH GAS EMERGENCIES (REPORTS OF GAS ESCAPES AND FUMES) – GAS OPERATIVE NOT ON SITE OF REPORTED EMERGENCY

Where a gas operative is advised of a gas escape, when **not** on site, the gas user (responsible person) should be instructed to:

1. Turn off the gas

For natural gas – turn off the gas supply at the meter at the emergency control valve (ECV); unless the meter is located in a basement or cellar. If there is a smell of gas in the basement or cellar evacuate the building.

For Liquefied Petroleum Gas (LPG) – Bulk storage supply – shut off the ECV outside the building and the gas isolation valve on top of the above-ground storage vessel(s), or underground storage vessel(s).

For LPG – metered installations – shut off the ECV at the meter installation outside the building.

For LPG – cylinder fed installations – shut all cylinder valves.

2. Extinguish all naked flames

Do not smoke or strike matches.

3. Do not operate electrical switches

Turning a light on or off can ignite escaping gas.

4. Open windows and doors

This gets rid of gas by ventilating the property. Additionally, for LPG, ventilate at low level (LPG is heavier than air).

Note: *If gas is evident (smell, hear, see, feel) externally, consideration should be given to preventing gas entering the property. For example close doors and windows.*

5. Call the Gas Emergency Contact Centre

In the case of natural gas, contact the Gas Emergency Service provider (ESP), or in the case of LPG, the Gas Supplier. The list below contains the contact details of ESPs, together with supporting advice.

Contact details of Gas Emergency Service Providers and Gas Suppliers in the British Isles

Region	Gas Type		Contact details	Telephone Details
England, Scotland and Wales	Natural gas		Contact the Gas Emergency Contact Centre	0800 111 999
	LPG*	Bulk and Metered supplies		See telephone number on the bulk storage vessel or at the meter
		Cylinder supplies	For cylinder supplies on caravan parks and hire boats, the site owner and/or boat operator may also have responsibilities. Advice may be obtained from the gas company identified on the cylinder through their emergency contact details	See gas supplier emergency contact details in the local telephone directory
Northern Ireland	Natural gas		Northern Ireland Gas Emergency Service	0800 002 001
	LPG*	Bulk and Metered supplies		See telephone number on the bulk storage vessel or at the meter
		Cylinder supplies	For cylinder supplies on caravan parks and hire boats, the site owner and/or boat operator may also have responsibilities. Advice may be obtained from the gas company identified on the cylinder through their emergency contact details	See gas supplier emergency contact details in the local telephone directory
Isle of Man	Natural gas & LPG*		Manx Gas Ltd.	01624 644444
Channel Islands - Guernsey	Mains gas‡ & LPG*		Contact Guernsey Gas Ltd.	01481 749000
Channel Islands - Jersey	Mains gas‡ & LPG*		Contact Jersey Gas Company Ltd.	01534 755555

‡ Mains gas in the Channel Islands is an LPG and air mixture
* LPG – Liquefied Petroleum Gas.

Gas Emergency contact details of the four main suppliers of LPG in the British Isles are shown below

Calor: 08457 444 999	**BP:** 0845 607 6118
Flogas: 0845 7200100	**Shell:** 0870 7539999

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Chineham Park
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Telephone: 0800 408 5577
Fax: 01256 341501
Website: **www.gassaferegister.co.uk**

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Edition 2 – June 2000

Edition 3 – September 2001

Edition 4 – May 2005

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This Procedure is a revision of the Gas Industry Unsafe Situations Procedure and comes into effect:

1st October 2009

Notice

The drafting Industry Panel makes no warranty about the content of this Procedure and will not be liable under any circumstances for any direct or indirect damages resulting from any use of this Procedure.

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FOREWORD

Gas Industry Unsafe Situations Procedure – Edition 6

This edition of the Gas Industry Unsafe Situations Procedure (GIUSP) has been developed to assist and support registered gas businesses and their operatives, to correctly identify, classify and deal with the wide variety of gas-related unsafe situations that they are likely to encounter during the course of their work.

This Procedure comes into effect on 1st April 2009.

This edition was developed by a Drafting Panel made up of representation from a broader range of experienced Gas Industry sectors than that used in previous editions of the Procedure. As with the previous edition, this Procedure continues to concentrate on gas safety issues, concerning all gas families and reflects up-to-date installation and servicing practices applied in the workplace, taking into account advances in both appliance and equipment technologies.

Much of the guidance provided in the previous edition remains consistent, however, all sections of the Procedure now contain significantly revised information and guidance and are summarised as:

- the introduction of generic information for dealing with gas emergencies, such as gas escapes or reports of smells from appliances;
- the application of the Procedure in respect to individual operative competence;
- dealing with unsafe situations and assessing risk in non-domestic situations, which are both inside and outside the scope of current gas safety legislation;
- the reporting requirements concerning major injuries and unsafe (dangerous) gas fittings etc.;
- revised classification Tables relating to all unsafe situations, in particular:
    - recognition of the completed stepped change in Edition 4 of GIUSP, in dealing with inadequate ventilation for open-flued and flueless appliances;
    - dealing with unsatisfactory appliance combustion performance readings, and;
    - revised Industry-led section relating to LPG unsafe situations.

A uniform approach to dealing with unsafe situations remains beneficial to all, particularly gas users/responsible persons and competent registered gas businesses. The consistent application of the guidance contained in this Procedure will provide tangible protection to all that it affects.

This edition of the Procedure recognises the significant addition to gas safety generally that the development and use of electronic portable combustion gas analysers (flue gas analysers) has had. In particular, their usefulness in determining the safe combustion performance of gas appliances and dealing with reports of fumes and smells.

During the development of this Procedure a revised version of BS 5440-1 concerning the installation of gas appliances to chimneys and the maintenance of chimneys has been published, which adopts common terminology consistent with the range of products used throughout the European Community. For example, the term "**CHIMNEY"** now refers to a structure of any material consisting of walls, or walls enclosing a flue or flues, whereas the term "**FLUE"** now refers to the passage for conveying combustion products to the outside air. This Procedure acknowledges the importance of BS 5440-1, however continues to use the term "**FLUE**" when referring to the discharge of combustion products to avoid undue confusion. The intention being that future revisions of this Procedure will be, aligned to BS 5440-1.

Mark Rolfe, Technical Manager, Gas Safe Register

1. STATUS OF THE PROCEDURE

This Procedure has been drawn up by the gas industry, in order to assist competent operatives to meet their legal duties and correctly classify unsafe gas installations in accordance with the Gas Safety (Installation and Use) Regulations (GSIUR) and associated Approved Code of Practice and Guidance. It also provides guidance on how to recognise and deal with non-compliance with current industry standards and procedures.

Following this guidance is not compulsory and you are free to take other action, but if you do follow the guidance, you will normally be doing enough to comply with the law.

If an operative chooses to apply alternative guidance, they will need to show that they have complied with the law in some other way, or a court may find them at fault.

The Health and Safety Executive (HSE) supports the industry-led initiative to revise this Procedure, which will support the industry in maintaining a consistent approach to the risk assessment of gas installations.

This Procedure, which has also been published as Technical Bulletin (TB) 001, is in effect a 'live' document and is constantly evolving as new information/guidance is developed. To ensure that you keep up-to-date with the current requirements of this Procedure, you should visit: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area and search for the controlled (current) copy.

2. OVERALL SCOPE

The information provided in this Procedure is relevant to all existing gas installations and appliances for 1st, 2nd and 3rd family gases, installed in both domestic and non-domestic properties. Based on assessed risk, it aims to provide sound engineering guidance on how competent operatives should deal with various situations which currently affect, or may in the future affect safety.

Note: *The general principles of GIUSP may be used as a guide to action in other premises* (see sub-clause 4.1)*.*

This Procedure deals with situations that arise out of duties under GSIUR. However, operatives must be aware that under their general duty of care, other legislation such as Building Regulations (England, Wales, and the Isle of Man) and Building Standards (Scotland) will also be relevant and the principles of this Procedure can be applied to electric shock, water and steam pressure risks, for example. (See Appendix 4 for a non-exhaustive list of Normative References).

Part 1 – deals with those situations that are identified as being unsafe or have a potential to be unsafe.

Part 2 – deals with situations which are not classified as unsafe; however, they do fail to comply with current industry best practice.

Part 3 – contains Tables giving guidance on particular situations and how to categorise them.

Note: *In addition to the guidance given in this Procedure, further information and guidance may be available from your own company procedures and Industry Standards.*

3. GENERAL INTRODUCTION

All appliances and other gas fittings must be installed in accordance with GSIUR, Building Regulations or Building Standards (as appropriate), the Electricity at Work Regulations, the Water Supply (Water Fittings) Regulations and with due regard to the manufacturer's installation instructions, British Standards and other industry guidance (e.g. The Institution of Gas Engineers and Managers (IGEM) Standards and UKLPG Codes of Practice), appropriate to the geographical region in which they apply.

3.1 New installations

When operatives carry out new installation work in customer's premises, they are required to ensure that the appliance and/or installation is installed and fully commissioned in accordance with GSIUR and manufacturer's instructions. If this cannot be achieved, the appliance and/or installation **must not** be left connected to the gas supply. If an appliance cannot be fully commissioned, the gas supply must be disconnected from the appliance and sealed with an appropriate fitting. It should be labelled to the effect that it **must not** be used until full and proper commissioning tests have been carried out.

Note: *For gas appliances, the manufacturer's instructions supplied with the appliance will normally specify that it is to be installed in accordance with the Industry Standards or relevant Codes of Practice applicable at the time of type testing of the appliance (CE Marking). However, the manufacturer's instructions may recommend special requirements specific to the appliance type and model and where they do, these should be followed.*

3.2 Existing installations

When assessing whether an existing appliance is installed correctly, where practicable, the operative should in the first instance consult the manufacturer's instructions for the appliance and note any special requirements.

Where the manufacturer's instructions for the appliance are not available, an assessment of the installation against the requirements of the current versions of installation standards should be carried out. (See also sub-clause 3.3 and Part 3 of this Procedure).

THE PRIORITY FOR GAS OPERATIVES WHEN ENCOUNTERING AN UNSAFE SITUATION IS TO SAFEGUARD LIFE AND PROPERTY. IT IS ESSENTIAL THAT GAS OPERATIVES ARE ABLE TO IDENTIFY APPLIANCE(S) AND/OR GAS INSTALLATIONS WHICH PRESENT A DANGER.

Note: *Operatives should be aware that under the requirements of GSIUR, they have a duty to take appropriate action regarding unsafe situations and would themselves be in contravention of the regulations if they failed to act.*

Dependent upon the apparent risk, existing gas installations found to be unsafe should be classified as either:

- **'Immediately Dangerous' ('ID'), or**
- **'At Risk' ('AR')**

So that operatives can decide whether the degree of non-conformance is such that the gas installation should be deemed 'Immediately Dangerous' ('ID') or 'At Risk' ('AR'), they should follow the procedures found in Part 1 of this Procedure and refer to examples of both 'ID' and 'AR' situations set out in Table format in Part 3 of this Procedure.

Note: *After following this Procedure, where an Emergency Service Provider (ESP) is unable to categorise as above, they may use another category – 'Concern for Safety'. This is a category used only by ESPs where fumes are suspected (see also sub-clause 6.5).*

When an operative identifies an unsafe situation, the principal objective should be to determine the cause and rectify the fault. However, where this is not possible, or practical, it is necessary to advise the gas user or responsible person that the fault must be corrected immediately or the appliance and/or installation (or affected part of the installation) disconnected or turned off to make it safe dependant upon its category (see also Clause 6).

In carrying out these actions, the gas user or responsible person should always be informed of the reasons and advised that they are carried out in the interest of gas safety.

Where an installation does not meet the relevant standards, but would not be categorised as either 'ID' or 'AR', it may be classified as:

- **'Not to Current Standards' ('NCS')**

This Procedure deals with the particular actions that need to be taken when a '**Not to Current Standards' ('NCS')** situation is identified. It considers the circumstances in which there are multiple **'NCS'** situations that may escalate to **'AR'.** Generally, it does not include those situations that fall outside of the requirements of GSIUR.

The process to follow will be found in Part 2 of this Procedure and examples of 'NCS' situations are set out in Table format in Part 3 of this Procedure.

3.3 Applying the GIUSP within the limits of operatives' competencies

All operatives working to this Procedure in domestic and non-domestic sectors are required to identify 'ID' and 'AR' situations on all appliances and/or installations they "work" on ("work" as defined by GSIUR).

Where "work" is not carried out, a visual risk assessment should be undertaken on those appliances and/or installations that are encountered for evident defects and this Procedure applied where appropriate **within the limits of the operative's competence.** If unsure of the safety of an appliance and/or installation, further guidance should be sought. For further guidance on visual risk assessment of appliances or installations, reference should be made to Appendix 7 of this Procedure.

Competence in safe gas installation work requires operatives to have enough knowledge, practical skill and experience to carry out the job in hand safely, with due regard to good working practice. Knowledge must be kept up-to-date with awareness of changes in law, technology and safe working practice.

All registered businesses will need to consider the provision of on-going training and support to assist them and their operatives, in meeting their obligations under GSIUR and the Health and Safety at Work etc. Act (HSWA).

Note: *Where a registered business is currently operating to the full scope of GIUSP within its own operational procedures, the business should be aware that both Gas Safe Register and the HSE will expect that any change in procedure should not lessen the safety standard of that previously being applied and that the registered business may be required to explain on what grounds and why they have reassessed their operational procedures.*

3.4 Gas Safe Register declared legislation and normative document status tree

The status tree (see Figure 1), describes the hierarchy which Gas Safe Register applies to the current gas industry legislation and industry codes.

Note: *This information is provided for transparency and should not be regarded as a definitive list.*

The criteria ranges from the current applicable legislation, which is the high-level requirement and then cascades down through to the specific equipment requirements set by the manufacturer and finally, the relevant Standard or Code of Practice as a minimum safety benchmark.

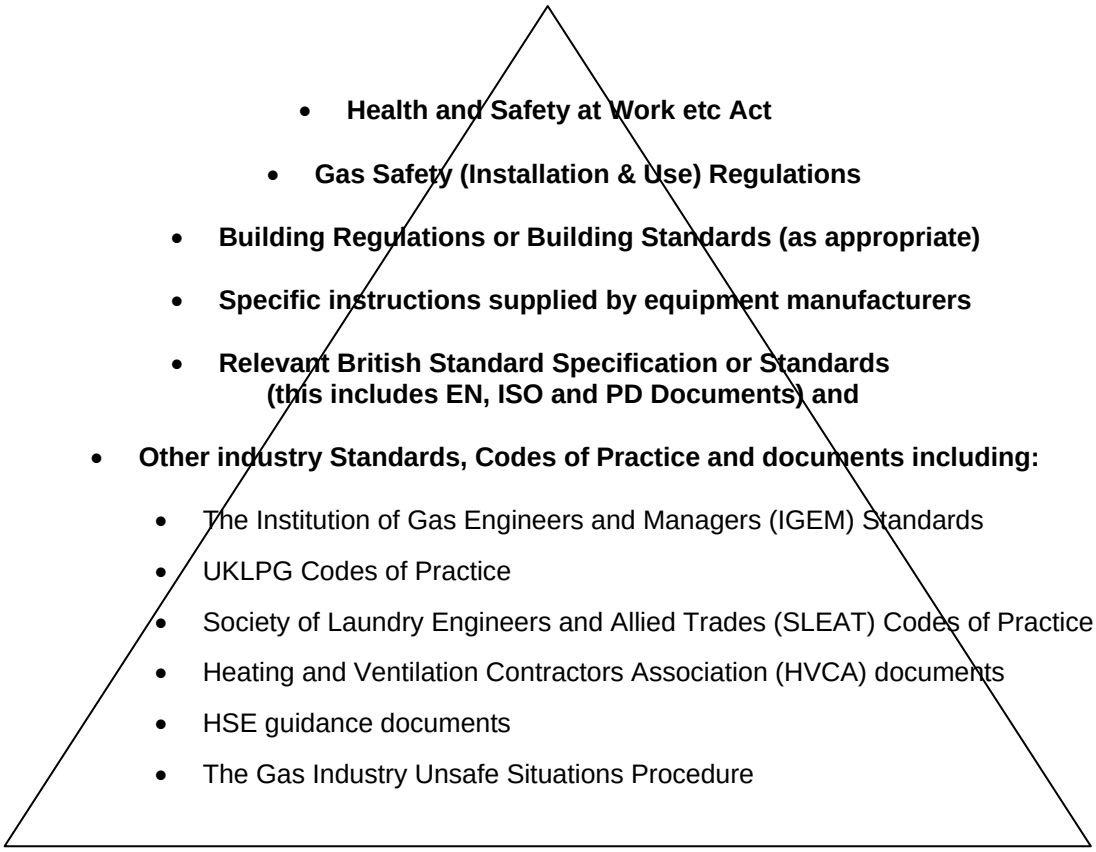

Figure1. Gas Safe Register declared legislation and normative document status tree

4. STATUTORY REQUIREMENTS

Registered gas businesses and individual gas operatives must be familiar with all their obligations under Part 1 of this Procedure and in relation to those Regulations outlined below.

4.1 The Gas Safety (Installation and Use) Regulations (GSIUR) 1998

The GSIUR are concerned with the installation and use of gas fittings in all domestic premises, commercial premises e.g. hospitals, educational establishments, offices, hotels, restaurants, mobile catering units, leisure accommodation vehicles, (including caravan holiday homes and hired touring caravans), inland waterway craft hired out to the public and sleeping accommodation, wherever it is located.

The Regulations do not apply in Factories, Mines, Quarries, Sewage Works and Agricultural premises (except parts used for domestic or residential purposes, or as sleeping accommodation). However, other safety legislation does apply – for example, the HSWA. The general principles of GIUSP may be used as a guide to action in these premises.

The legal definition of 'factory' is wide ranging and in addition to manufacturing and/or processing premises, includes printing, fruit and vegetable packing, scrap yards, repair workshops (e.g. for televisions or vehicles), dairies, prison workshops, hospital and other institutional laundries, certain warehouses using mechanical power and power stations etc.

Regulation 3(1) of GSIUR requires that *"No person shall carry out any work in relation to a gas fitting or gas storage vessel unless he is competent to do so"*.

When any gas work is carried out in relevant premises, gas businesses must be registered with Gas Safe Register and their operatives must hold a valid certificate of competence for each work activity that they wish to undertake. The certificates must have been issued under either the Nationally Accredited Certification Scheme (ACS) for Individual Gas Fitting Operatives, or National/Scottish Vocational Qualifications (N/SVQ) aligned with the ACS scheme e.g. the City & Guilds 6012 scheme.

The GSIUR, place particular requirements on gas operatives relating to matters of gas safety. Under the requirements of these Regulations, operatives have to make judgements on the level of risk. In particular, this relates to Regulations 26(9), 34(3) and 34(4).

Regulation 26(9) requires that *"Where a person performs work on a gas appliance he shall immediately thereafter examine:*

a) the effectiveness of any flue;

b) the supply of combustion air;

c) its operating pressure or heat input or, where necessary, both;

d) its operation so as to ensure its safe functioning.

And forthwith take all reasonably practicable steps to notify any defect to the responsible person and where different, the owner of the premises in which the appliance is situated or, where neither is reasonably practicable, in the case of an appliance supplied with liquefied petroleum gas, the supplier of gas to the appliance, or, in any other case, the transporter".

In addition to the requirement when performing work on an appliance, Regulation 34(3), imposes a general duty requiring that:

"Any person engaged in carrying out work in relation to a gas main, service pipe, service pipework, gas storage vessel or gas fitting who knows or has reason to suspect that any gas appliance cannot be used without constituting a danger to any person shall forthwith take all reasonable steps to inform the responsible person for the premises in which the appliance is situated and where different, the owner of the appliance or, where neither is reasonably practicable, in the case of an appliance supplied with liquefied petroleum gas, the supplier of gas to the appliance, or, in any other case, the transporter".

Therefore, any person carrying out any work as defined in Regulation 34(3), who becomes aware of an unsafe or dangerous appliance during the course of that work, has a duty to inform the responsible person, whether or not the work is being carried out on that appliance. However, this duty only extends to those issues which are within the competence of the person engaged in work and which it is reasonable to expect the person to notice through visual inspection, for example, when relighting an appliance following the interruption of the gas supply, or when observing an appliance in the course of other work. It is not expected that additional tests and examinations be undertaken on appliances not being worked on by that person.

The following are examples of situations that a gas operative would be expected to be able to identify from a visual inspection:

- signs of spillage;
- evidence of poor or incomplete combustion;
- the general condition of the appliance installation e.g. physically damaged or insecurely fixed.

Note: *For further guidance on visual risk assessment of gas appliances, see Appendix 7 of this Procedure.*

The GSIUR require that when an operative identifies that a gas appliance is unsafe they must notify the gas user or responsible person as soon as possible. In rented accommodation the landlord or managing agent should also be notified. In guidance, GSIUR recommends that any verbal notification of an unsafe gas installation should be backed up by written notification that the gas installation is unsafe and that continued use in domestic and commercial premises is an offence under GSIUR.

Regulation 34 also makes it an offence for a gas user, responsible person or any other person, to use a gas appliance and/or installation once they have been advised that the appliance and/or installation constitutes a danger.

For gas appliances identified as 'ID', the guidance to GSIUR recommends the following action should then be taken:

1. The operative should ask the gas user or responsible person to allow them either to repair or disconnect the gas appliance and/or gas installation as appropriate. However, the operative has no legal power to take such action if the gas user or responsible person refuses.

2. If consent for such action is not given, the operative should label the gas appliance as being unsafe and that continued use is an offence; with the agreement of the gas user or responsible person the appliance isolation valve (if one is fitted), should be closed. Irrespective of any action taken by the operative, the obligation rests on the gas user or responsible person(s) not to use, or allow the use of any unsafe gas installation.

3. Where agreement of the gas user or responsible person cannot be obtained for repair or disconnection of an unsafe gas installation, the operative should contact the ESP, or in the case of LPG, the Gas Supplier. A list of ESPs and LPG Gas Suppliers, together with supporting advice can be found on page 2 of this Procedure.

In an emergency situation, a public gas transporter (GT) has powers to enter a property and take action to avert danger to life (and property) under the Gas Safety (Rights of Entry) Regulations 1996. In the case of LPG, a contractual right of entry may exist between the supplier and customer.

This industry Procedure is based on the above legal requirements and guidance; this Procedure also provides guidance on how to deal with 'AR' situations.

4.1.1 Non-domestic installations

In non-domestic premises, the same **'ID', 'AR'** and **'NCS'** procedures should be followed within the scope of GSIUR. For premises outside the scope of GSIUR the safety principals outlined in this Procedure can be used to classify the level of risk and determine the safe course of action to take.

EXCEPT IN EXTREME CIRCUMSTANCES (WHERE A DELAY TO CONSULT WITH THE RESPONSIBLE PERSON WOULD IMMEDIATELY ENDANGER LIFE OR PROPERTY), THE OPERATIVE SHOULD ALWAYS CONSULT ON THEIR FINDINGS WITH THE RESPONSIBLE PERSON ON SITE. THE RESPONSIBLE PERSON SHOULD EXERCISE THEIR PROFESSIONAL JUDGMENT THROUGH RISK ASSESSMENT TO DETERMINE THE SAFE COURSE OF ACTION TO BE TAKEN.

The operative should provide the responsible person with accurate recorded results of any tests and/or checks carried out, be able to provide guidance on the classification of the risk under this Procedure and assist with the assessment of the risk, but ultimately, the HSWA will always be applicable.

Under the HSWA, employers are required to do everything so far as reasonably practicable, to ensure that 'responsible persons' have the skills, training, experience and personal qualities necessary for the proper exercise of professional judgement. There should be systems and procedures in place, such that the professional judgement can be reviewed and monitored and these systems and procedures should define the hierarchy of responsibility and the process for the responsible person to be able to refer for higher review any professional judgment considered to be beyond their competence, or that deviate from their normal responsibilities.

4.1.1.1 Risk Assessment – Non-domestic installations

Where deviation from the actions advised in this Procedure is being considered, the responsible person should complete a documented risk assessment to determine a safe course of action following the identification of an unsafe situation. The responsible person should draw upon expert knowledge of any specific process, safety controls, industry standards, manufacturer's guidance or company procedures that are available, taking into account the process and business risk from the actions proposed.

In all cases, it is essential that the operative keeps accurate documented records of tests and/or checks completed. Any actions they have taken as a result of the risk assessment should be authorised by the responsible person, including times, dates and descriptions. These should be signed by the operative and the responsible person concerned.

The risk assessment may conclude that a gas-fired appliance and/or installation may remain in use provided that additional safety measures have been put in place.

Note: *There are some industrial processes that would present an immediate health and safety risk if shut down in an uncontrolled manner. For example, some furnaces require gradual shut-down and cooling over a number of days to ensure the furnace does not collapse and some glass producing processes utilise tanks of molten tin to float the cooling glass. An immediate shut-down of an industrial process or large gas installation, could produce its own risks from gas pressure loss in the system that may require complex testing and purging procedures to re-instate.*

In the case of hospitals and care homes, the loss of heating and/or hot water facilities could instigate the evacuation of vulnerable people and the requirement for other emergency agencies to become involved.

4.2 The Gas Safety (Management) Regulations 1996

These Regulations only affect gas operatives employed to carry out emergency work as emergency service providers (ESPs) for public gas transporters (GTs) who deal with calls made to the constantly manned Gas Emergency Contact Centre. National Grid is the operator of the Gas Emergency call handling service in Great Britain (GB) and as such, receives all gas emergency calls irrespective of the location of the emergency.

National Grid also processes calls on behalf of the Independent Distribution Networks (IDNs). National Grid handle reports of escapes from the natural gas network only, LPG consumers should contact their LPG supplier (GSIUR 1998). If the LPG consumer does not know who their supplier is, National Grid and the IDNs have an obligation to make safe and to attend an LPG gas emergency to make safe. Once processed, each network becomes responsible for dispatching the job and sending a competent operative to site. Currently there are five gas network owners covering the length and breadth of GB.

The Regulations require ESPs (e.g. National Grid), to respond not only to calls concerning suspected natural gas escapes, but also any calls concerning "fumes" that could be an indication of spillage of products of combustion from appliances. In the latter case, the GT's/ESP's operatives will do no more than inspect appliances visually and either disconnect any that they consider to be 'ID', isolate any considered to be 'AR', or decide that they have a concern for safety which requires further investigation (see sub-clause 6.5). When appropriate, the circumstances may need to be reported under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). In each case, the appliance will be labelled, saying that the appliance should not be used until it has been examined and tested by a registered business. When operatives are able to inspect the appliance and it is considered to be a dangerous gas fitting, the circumstances may need to be reported under RIDDOR (see sub-clause 8.2).

4.3 The Gas Safety (Rights of Entry) Regulations 1996

These Regulations apply to natural gas and make provision for an officer authorised by a GT to take immediate action if they have reasonable cause to suspect that gas conveyed by the GT is escaping, or may escape, in **any** premises (domestic and non-domestic including factories), or that gas so conveyed, which has escaped, has entered, or may enter, any premises, including escapes of products of combustion, within their gas transportation network.

If the above criterion applies, the Regulations allow for any officer authorised by the GT, upon production of a duly authenticated document showing their authority, to enter premises to carry out any work necessary to prevent the escape and take any other steps necessary to avert danger to life.

Once appliances are disconnected, it is an offence to reconnect them without the permission of the GT, (unless this is carried out by a competent person as part of the process to affect the repair).

Where an 'ID' situation is encountered and the responsible person refuses to allow the operative to take appropriate action, these rights and powers can be called on by contacting the relevant ESP for the appropriate geographical location. For details of ESPs, see – Contact details of Gas Emergency Service Providers and Gas Suppliers – on page 2 of this Procedure.

Note: *The ESP will require clear concise information and site details as well as asking for contact information in order to be able to verify with the reporting operative the nature of the unsafe situation.*

The ESP through their GT will then take the necessary action, which in exceptional circumstances where access to the equipment is refused, could lead to the obtaining of a warrant to exercise their rights of entry and disconnection powers.

For LPG installations, the Rights of Entry Regulations do not generally apply and therefore, the operative should contact the gas supplier who may have a contractual right of entry and has duties under GSIUR to respond to situations where gas is escaping. The LPG supplier is usually the company providing gas by filling the storage vessel or refillable cylinders, but on caravan parks and sites, this may be the park owner or landlord. Details should be found on a notice near the LPG storage vessel or meter, the ECV, or printed on the cylinder.

Whilst LPG suppliers have duties to attend gas escapes, where these involve suspected emissions of carbon monoxide (CO) from a gas appliance, their duty is limited to giving advice on how to prevent the escape or emission and the need for examination and where necessary repair by a competent person.

GAS OPERATIVES WORKING IN A PREMISE DO SO BY INVITATION OF THE GAS USER OR RESPONSIBLE PERSON AND ACTIONS THEY MAY WISH TO TAKE MUST BE WITH THE GAS USER OR RESPONSIBLE PERSON'S PERMISSION.

4.4 RIDDOR – Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

Under these Regulations, registered businesses or their operatives are required to notify the HSE of certain unsafe situations (see also sub-clause 8.3).

4.5 The Health and Safety at Work etc. Act (HSWA) 1974

There is a duty under this Act, for employers and the self employed to ensure, so far as is reasonably practicable that others are not exposed to health and safety risks arising from their work activities. Although this will principally concern the way in which the work is carried out, it may extend to the condition in which the installation is left.

5. GAS INCIDENTS

5.1 Attending a gas related incident site

Where operatives are called to, or encounter, a gas related incident, it is extremely important that the incident scene is **not** disturbed. They should immediately contact the appropriate ESP for natural gas or the supplier for LPG (see sub-clause 4.3 and – **Contact details of Gas Emergency Service Providers and Gas Suppliers** – on page 2 of this Procedure) and inform them of the incident. With the least possible disturbance to the incident scene and where possible and safe to do so, the installation should be made safe e.g. by turning off the gas supply at the appropriate ECV and if necessary, ventilating the premises. In cases of fire and explosion, or where an 'ID' situation is evident, the gas installation must be disconnected and sealed.

In non-domestic premises, the responsible person should take the decision whether or not to shut down the installation or process. This is essential where issues of process safety are involved, e.g. the cooling down of a furnace.

It is important to record all actions undertaken, as they will assist those parties involved in any subsequent incident investigation.

Note: *For further guidance on RIDDOR reporting requirements, see Clause 8.*

5.2 Attending a site after a gas related incident

When attending site, operatives should question the gas user or responsible person and check the installation for any gas safety warning label(s) to determine whether a RIDDOR reportable incident has occurred. If working at a site where it is known that there has been a gas incident, do not carry out any work other than making the installation safe, without first liaising with the HSE and the Gas Supplier to ensure any investigations are complete.

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PART 1

6. DEALING WITH UNSAFE SITUATIONS

6.1 Introduction

Gas operatives may identify gas installations in customer's premises that they consider to be unsafe. This Part explains how to deal with the unsafe situation and details the documentation that should be completed and provided to the gas user or responsible person.

Note: *It is advisable to keep records for at least 6 years to cater for possible future civil litigation.*

6.2 Scope

This Part describes the actions that operatives should take, when an 'ID', 'AR', or 'Concern for Safety' (see ***Note***) situation is identified in premises.

It deals with how to explain the situation to the gas user or responsible person. It also details the procedure that should be followed and documentation to be completed and provided to the gas user or responsible person where situations are identified as being unsafe, or have a potential to be unsafe.

The Tables in Part 3 of this Procedure give guidance to competent operatives, regarding the categorisation of both unsafe ('ID' and 'AR') situations and certain 'NCS' situations. They contain the most common examples of situations that an operative is likely to encounter. However, the Tables are not exhaustive and individual circumstances may require different actions to be taken. Therefore, operatives should exercise sound engineering judgement within their area of competence and where there is doubt, seek further guidance. In collating the Tables the Industry Panel have applied the following logic when deciding the category. This should form the basic approach to any unlisted situation:

- 'ID' – appliance and/or installation, which if operated or left connected to a gas supply, **is an immediate danger to life or property**. Examples of this are combustion products entering the room, or gas escapes.

- 'AR' – appliance and/or installation where one or more faults exist and which, as a result, if operated, **may in the future constitute a danger** to life or property.

- 'NCS' – appliance and/or installation that although operating safely does not comply with the latest standard (see Part 2 for further guidance on 'NCS' situations).

Note: *The '***Concern for Safety'** *procedure applies only to ESPs or their approved agents. For further guidance, see sub-clause 6.5 of this Procedure.*

6.3 'Immediately Dangerous' ('ID') appliances and/or installations

An 'ID' appliance and/or installation is one, which if operated, or left connected to a gas supply, is an immediate danger to life or property. Broadly, these will be installations that fail tightness tests, appliances that fail spillage tests or appliances which have serious flueing and/or ventilation, or combustion deficiencies when measured against the appliance manufacturer's instructions, British Standards or other relevant Standards and/or guidance documents.

Where possible and with the gas user/responsible person's agreement, every endeavour should be made to **RECTIFY** the situation(s) and make the appliance and/or installation safe to use at the time of the visit, or, where this is not possible, the following actions **MUST** be taken:

a) Explain to the gas user/responsible person that the appliance and/or installation is, in your opinion, '**Immediately Dangerous' ('ID')** and must be disconnected from the gas supply until the situation has been rectified and that further use would contravene GSIUR.

Note: *Appendix 5 contains scripts that may be useful to help when called upon to explain a particular situation to the gas user or responsible person.*

b) Attach a suitably worded 'DO NOT USE' warning label to the appliance and/or installation in a prominent position.

c) Complete a 'WARNING NOTICE' and ask the gas user or responsible person to sign it as a record of receipt. Give a copy to the gas user or responsible person and keep a copy for your file.

Note: *To enable registered businesses to comply with the requirements of GIUSP, suitable forms and labels are available. An example of a suitable warning label is shown in Appendix 6 - Figure 6.*

d) Either:

   i) With the permission of the gas user/or responsible person, immediately **disconnect and seal** the gas supply to the appliance or installation with an appropriate fitting, **or**;

   ii) If the gas user or responsible person refuses to allow disconnection, endeavour to turn off the appliance and/or installation and in the case of natural gas, make immediate contact with the Gas Emergency Contact Centre, or for LPG, the Gas Supplier, (see sub-clause 4.3 and – **Contact details of Gas Emergency Service Providers and Gas Suppliers** – on page 2 of this Procedure) and explain the course of action taken. Obtain a job reference number from the Gas Emergency Contact Centre operator and the time of the contact for record purposes (see ***Note 2*** below).

e) Clearly indicate on the 'Warning Notice' form that an '**Immediately Dangerous' ('ID')** situation exists and note the type of fault and action taken.

f) If the gas user or responsible person refuses to sign the 'Warning Notice', it is recommended that this detail is recorded on the 'Warning Notice'.

g) If the gas user is not the owner of the appliance and/or installation, a copy of the 'Warning Notice' should also be provided to the owner, landlord or managing agent.

Note 1: *An operative may use any system that delivers the same level of safety identified in a – g above, e.g. the use of a combined 'Do Not Use Warning Label and Warning Notice'. This may be particularly relevant to those using electronic recording systems.*

Note 2: *The Gas Emergency Contact Centre is likely to require the following information from any person making a request for a disconnection under the Gas Safety (Rights of Entry) Regulations:*

- *confirmation that it is an **Immediately Dangerous and/or Rights of Entry** disconnection request;*
- *the name of the person reporting, the Gas Safe Register registration number of the business and the operative's individual Identification number;*
- *the name of the responsible person for the property;*
- *the address at which the **Immediately Dangerous** situation exists;*
- *details of the **Immediately Dangerous** situation;*
- *the type of appliance and/or installation;*
- *the location within the property.*

Gas operatives, for their own records, should in return ask for and document the ESP's reference number for the call.

6.4 'At Risk' ('AR') appliances and/or installations

An 'AR' appliance and/or installation is one where one or more faults exist and which, as a result, if operated, **may in the future constitute a danger** to life or property.

Where possible and with the gas user/responsible person's agreement, endeavour to **RECTIFY** the situation and make the appliance and/or installation safe to use at the time of the visit, or if this is not possible, the following actions **should** be taken:

a) Explain to the gas user/responsible person that the appliance and/or installation is, in your opinion, '**At Risk' ('AR')** and that it should not be used. Continued use in these circumstances would be at the gas user or responsible person's own responsibility and may be in breach of the law.

Note: *Appendix 5 contains scripts that may be useful to help when called upon to explain a particular situation to the gas user or responsible person.*

b) Attach a suitably worded 'DO NOT USE' warning label to the appliance and/or installation in a prominent position.

c) Complete a 'WARNING NOTICE' and ask the gas user or responsible person to sign it as a record of receipt. Give a copy to the gas user or responsible person and keep a copy for your file.

Note: *To enable registered businesses to comply with the requirements of GIUSP, suitable forms and labels are available. An example of a suitable warning label is shown in Appendix 6 - Figure 7.*

d) With the gas user or responsible person's permission, **TURN OFF** the appliance and/or installation. If permission to turn off is refused, the gas user or responsible person's attention should be drawn to the fact that it may be an offence to continue to use a gas appliance and/or installation once informed that it has a potential to be dangerous.

e) If the gas user or responsible person refuses to sign the 'Warning Notice', it is recommended that this detail be recorded on the 'Warning Notice'.

f) If the gas user is not the owner of the appliance and/or installation, a copy of the 'Warning Notice' should also be provided to the owner, landlord or managing agent.

NO FURTHER ACTION IS REQUIRED.

Note: *An operative may use any system that delivers the same level of safety identified in a – f above, e.g. the use of a combined 'Do Not Use Label and Warning Notice'. This may be particularly relevant to those using electronic recording systems.*

6.5 'Concern for Safety' labelling procedure for ESP operatives

Note: *This procedure applies only to ESPs or their approved agents.*

An ESP has a defined and limited scope of activities.

When called to a reported gas escape and/or fumes, a tightness test will be carried out to confirm the integrity of the gas installation downstream of the ECV.

When called to a reported smell of fumes, a visual inspection of the gas appliances in the property will be carried out. This should enable the ESP operative to identify whether there is an **'ID'** or **'AR'** situation within the property and apply the appropriate action as required by this Procedure. With the gas user or responsible person's permission, all other gas appliances will be turned off and a '**Concern for Safety'** label attached.

If, after the visual inspection, the ESP operative sees no obvious signs of either an 'ID' or 'AR' situation, there may still be a concern for safety. With the gas user or responsible person's permission, all gas appliances will be turned off and a '**Concern for Safety'** label attached.

The '**Concern for Safety'** label, used by an ESP, allows the ESP operative to identify, where possible, the area of concern to the gas user. This label states:

"This appliance has been visually inspected by an emergency service engineer who cannot confirm that it is safe to use. This appliance should not be used until it has been tested by a Gas Safe registered business".

The ESP operative will advise the gas user or responsible person of the concern and complete a written '**Safety Notice'** – a copy of which is left with the gas user. The ESP operative will advise the gas user or responsible person to contact a registered business. **The operative should recognise and understand that the attaching of this label does not declare the appliance unsafe for use**. The operative should carry out a thorough examination of the appliance(s) and form a judgement to determine whether the appliance(s) is/are safe for further use.

Note: *An example of a '**Concern for Safety'** label is shown in Appendix 6 - Figure 8.*

7. EXAMPLES OF UNSAFE SITUATIONS

Tables 1, 2 and 3 in Part 3 of this Procedure contain some examples of the types of situations which are considered to be **'ID'** or **'AR'.** For 'ID' and 'AR' situations, the Tables indicate where regulations, etc. may have been infringed relevant to the situation and the action necessary by the gas operative on site. For further guidance, see Appendix 2 of the Health and Safety Commission publication *Approved Code of Practice (ACoP) entitled – 'Safety in the installation and use of gas systems and appliances' – (L56).*

Note: *The lists in the Tables in Part 3 of this Procedure should not be taken as exhaustive, but may be useful to help to explain a difficult situation to the gas user or responsible person.*

Tables 1, 2 and 3 in Part 3 of this Procedure also contain examples of **'NCS'** situations and the action necessary by the operative on site (see Part 2 of this Procedure for further guidance).

8. RIDDOR REPORTING

8.1 General principles

The following guidance applies to Great Britain (England, Scotland and Wales). Other geographical areas may have similar reporting requirements.

There is a requirement under RIDDOR for certain types of injuries and dangerous gas fittings to be reported to the HSE. The purpose of this requirement is to allow HSE to monitor and investigate incidents and share lessons learned in the interests of public safety.

Attention: *Gas Safe registered businesses are required (by RIDDOR) to carry out this reporting.*

8.2 What is a RIDDOR 6(1) report and what type of incident is reportable?

RIDDOR Regulation 6(1) applies when someone has died or suffered a major injury in connection with gas, often as a result of carbon monoxide (CO) poisoning, or fire and explosion incidents. The incident is RIDDOR 6(1) reportable, unless the death or major injury was reportable under RIDDOR 3(1) (e.g. a major injury to a gas industry employee).

For CO exposure, the relevant major injury conditions are:

a) An injury requiring resuscitation or admittance to hospital for more than 24 hours.

b) Loss of consciousness caused by exposure to CO.

c) Acute illness***** requiring medical treatment****** resulting from the inhalation of CO.

*****Acute illness means illness which:

i. Progresses rapidly to a crisis after the onset of symptoms; and

ii. Has severe symptoms.

****** Medical treatment covers hospital and GP treatment.

Note: *See also Clause 5 –* ***Gas Incidents****.*

8.3 What to report under RIDDOR 6(2)

RIDDOR Regulation 6(2) requires registered gas businesses to notify the HSE of installations which by reason of **'design, construction, manner of installation, modification or servicing'**, pose a risk of death, or major injury to gas users. For example, the immediate threat to gas users from gas leakage, inadequate combustion of gas, or inadequate removal of products of combustion.

Reports are required where faulty workmanship is the cause. There is no requirement to report fittings that are dangerous due to a lack of maintenance and/or servicing alone. This requirement allows HSE to identify dangers arising from bad design or workmanship.

In general, these will be 'ID' situations; examples that should be reported are listed below. However, it should not be regarded as an exhaustive list:

a) Instances where the use of unsatisfactory fittings or poor workmanship result in a gas escape outside the tolerance of a tightness test;

b) Uncapped, open-ended pipes connected to the gas supply;

c) Appliances that are spilling products of combustion, or show signs of having done so, e.g. staining around draught diverters on open-flued appliances or above gas fires, with no evidence that the cause has been rectified;

d) Defective flues or chimneys that are not clearing flue gases;

e) Appliances that should be flued, but are not;

f) Appliances that are not suitable for use with the gas supplied, e.g. natural gas appliances being used with LPG;

g) Appliances that have had a safety device, such as a flame supervision device (FSD), made inoperative;

h) Appliances that are connected to the gas supply by a connection made of unsatisfactory material, such as garden hose;

i) Appliances that are dangerous through faulty servicing.

8.4 When to report under RIDDOR

A report must be made:

- RIDDOR 6(1) – F2508G1 form – as soon as basic information is known, normally via an initial phone report within 2 hours of attending the incident and followed up with a full report within 14 days;
- RIDDOR 6(2) – F2508G2 form – within 14 days of discovery.

8.5 How to report under RIDDOR

Reports should be made directly to the HSE by Telephone: 0845 300 9923, Fax: 0845 300 9924, via the internet (www.riddor.gov.uk), by email (riddor@connaught.plc.uk), via a link from the HSE website (www.hse.gov.uk), or by post to The Incident Contact Centre, Caerphilly Business Park, Caerphilly, CF83 3GG.

8.6 Matters of concern not reportable under RIDDOR

Some gas fittings may not have been installed in accordance with the requirements of gas safety legislation in force at the time the work was carried out. Unless they are found to be dangerous, they are not reportable to HSE. Nevertheless, there are some types of 'illegal' installations that call into question the competence of the original installer. If operatives wish to report these installations to HSE, they can do this by letter, email, or telephone to their local HSE office as a complaint. These would include appliances in rented accommodation that have not been safely maintained.

Note: *For further guidance on RIDDOR 6(2) reporting, see Technical Bulletin 002 (formerly TB 204) at:* https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.

Part 2

9. DEALING WITH 'NOT TO CURRENT STANDARDS' ('NCS') SITUATIONS

9.1 Introduction

Standards for gas installation work are regularly reviewed and improved following research, incident experience or changes in technology.

Gas installations are required to meet those standards and legislation applicable at the time of installation. If, following changes in standards and legislation, those installations are considered safe for continued use, with few exceptions, there is no requirement for the gas user or responsible person to upgrade them. Nevertheless, operatives should assess existing installations against current standards and/or requirements and providing the installation is operating safely, make a judgement about what advice to give the gas user or responsible person.

9.2 Scope

This Part deals with the particular actions that need to be taken when a '**Not to Current Standards' ('NCS')** situation is identified. It considers the circumstances in which there are multiple 'NCS' situations that may escalate to 'AR'. It does not include those situations that fall outside of the requirements of GSIUR.

Note: *The general principles of GIUSP may be used as a guide to action in other premises (see sub-clause 4.1).*

This Part also provides guidance on how to explain the situation to the gas user or responsible person. It also details the procedure that should be followed and documentation to be completed and provided to the gas user or responsible person where 'NCS' situations are identified.

9.3 General

It should be recognised, that due to changes in industry standards, many existing installations do not meet current standards. This, in itself, will not necessarily deem an installation as unsafe to use ('ID' or 'AR'). It is possible that older installations were installed in accordance with the manufacturer's instructions and standards at the time of installation. However, industry standards have changed to improve gas safety and reflect the experience gained from research and incident investigation. This means that gas operatives will be required to make an assessment of the risks posed taking into account all information available.

An existing installation that is not in accordance with the current Regulations, Standards and Specifications or Codes of Practice etc, should be considered as 'NCS', providing that it can only be used without constituting a danger to anyone and is not likely to do so.

Note: *For guidance on dealing with 'ID' and/or 'AR' situations, reference should be made to sub-clause 6.3 and sub-clause 6.4 respectively in Part 1 of this Procedure.*

THE APPLIANCE MAY BE LEFT IN OPERATION

9.4 Notification criteria

The category 'NCS' covers many different circumstances. Those within the Scope of this Procedure can be broadly categorised as:

1. One or more flueing and/or ventilation 'NCS' situations as listed in sub-clause 9.6.

2. 'NCS' situations that contravene GSIUR.

3. Other 'NCS' situations where industry standards have changed since the original installation, but the appliance is operating safely.

Categories 1 and 2 above **must** be notified to the gas user or responsible person, where they relate to a gas appliance. In category 3, operatives should use their judgement in deciding to report, dependant upon the usefulness of the information.

Note: *Appendix 5 contains scripts that may be useful to help when called upon to explain a particular situation to the gas user or responsible person.*

9.5 Methods of notification

When notifying, particularly for categories 1 and 2 in sub-clause 9.4, it is recommended that this is done in writing using an appropriate 'Advice Notice' and a copy retained for future reference that the gas user or responsible person is asked to sign as a record of receipt.

Note 1: *If the gas user is not the owner of the appliance and/or installation, a copy of the 'Advice Notice' should also be provided to the owner, landlord or managing agent.*

Note 2: *A gas operative may use any system that delivers the same level of security to that described above. This may be particularly relevant to those using electronic recording systems.*

Note 3: *To enable registered business to comply with the requirements of GIUSP, suitable forms and labels are available.*

Note 4: *It is advisable to keep records for at least 6 years to cater for possible future civil litigation.*

Important: *If verbal advice only is given, it is recommended that this is recorded on the operative's work sheet or job ticket.*

9.6 Dealing with multiple 'NCS' situations for open-flued appliances

Individual **flueing** and **ventilation** 'NCS' situations are unlikely to lead directly to the development of an unsafe situation, but experience has shown that when they occur in combination, it is more likely that an unsafe situation will result.

The list below outlines the situations which, **in combinations of two or more on the same installation**, may reduce the margin of safety to the extent that there is a greater risk of it becoming unsafe and it may be appropriate to consider it to be **'AR'.** For guidance on dealing with 'AR' situations, reference should be made to sub-clause 6.4 in Part 1 of this Procedure.

However, there are many existing installations which complied with the standards applicable at the time of installation and that have operated satisfactorily for many years, but do not conform to the latest standards. In determining whether to classify the situation as '**AR'**, operatives should consider all information that may assist in their assessment of the risks posed, (such as previous history, the level of 'built-in' appliance safety, e.g. atmospheric sensing devices (ASDs)).

Wherever possible, the installation should be brought up to current requirements. However, if this is not practicable, then following the risk assessment principle, any action that reduces the risk to an 'NCS' category may be adopted. For example, it may be possible to rectify one or more of the 'NCS' situations so that the '**AR'** category is no longer appropriate.

The following list of flueing and ventilation 'NCS' situations need to be considered when assessing the safety of the installation.

Flues

- Less than 600mm vertical rise to first bend (unless manufacturers' instructions allow);
- Flue sections that are more than 45 degrees from the vertical (see Figure 2);
- Flue terminations in high pressure zones i.e. not to the specifications described in relevant industry standards;
- Unsuitable flue termination design;
- Undersized flue that is operating satisfactorily;
- Long exposed un-insulated flue routes.

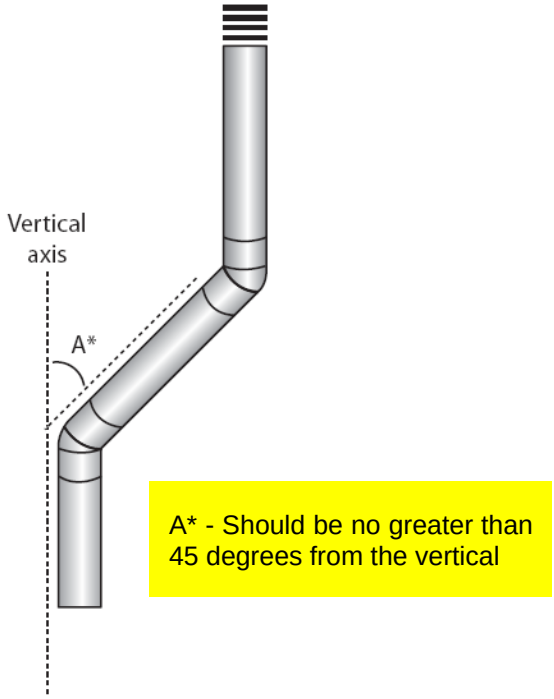

Figure 2 Determination of flue section angle

Ventilation

For ventilation situations, check the Table Sections in Part 3 of this Procedure for a full interpretation of the appropriate category:

- Correctly sized, but incorrectly configured compartment air supply.

Note: *It is important that any factors that are considered to reduce the risk to enable the installation to be considered as simply 'NCS' are accurately recorded, in order to support the decisions made.*

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Part 3

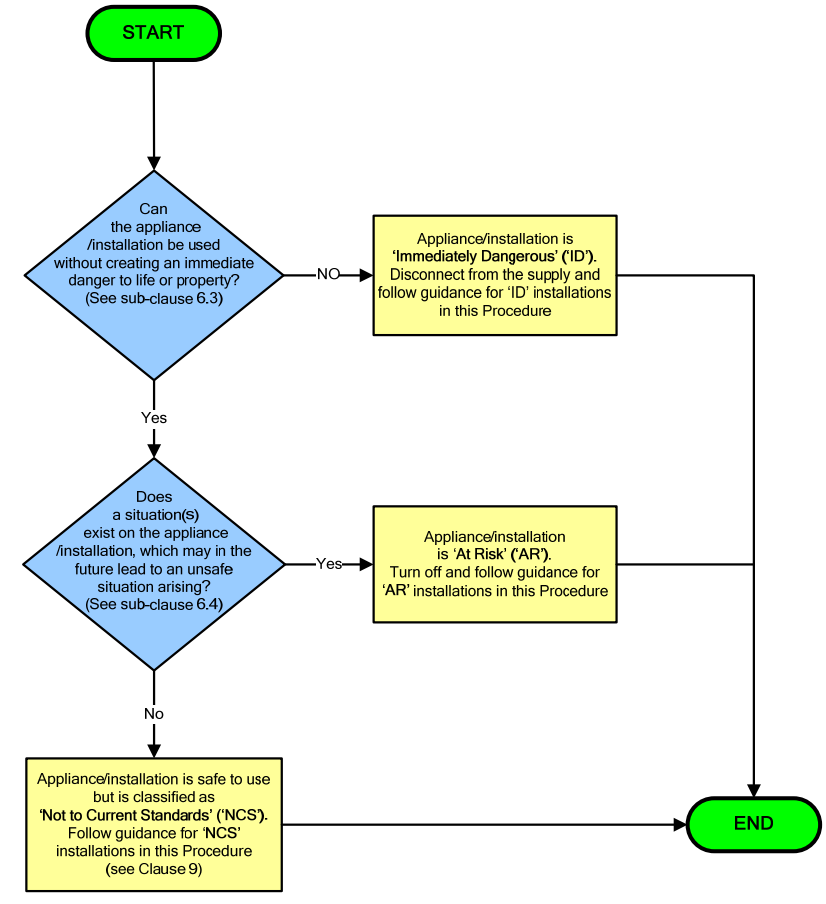
10. TABLES – GIVING GUIDANCE ON PARTICULAR SITUATIONS AND HOW TO CATEGORISE THEM

10.1 Introduction

The following Tables give guidance to competent operatives, regarding the categorisation of both unsafe ('ID' and 'AR' situations) and certain 'NCS' situations. They contain the most common examples of situations that an operative is likely to encounter. In collating the Tables the industry panel applied the logic detailed in Figure 3.

The Tables are not exhaustive and individual circumstances may require different actions to be taken, therefore, operatives should exercise sound engineering judgement to their actions within their area of competence and where there is doubt, seek further guidance. The logic in Figure 3 should form the approach to assessing any situation not covered in the Tables.

Figure 3 - GIUSP appliance/installation risk classification process



IF IN DOUBT, ALWAYS TAKE A COURSE OF ACTION WHICH ENSURES SAFETY

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10.2 Scope

Table 1 applies to both domestic and non-domestic situations for all gas types, unless otherwise specified.

Table 2 contains additional examples specific to LPG installations.

Table 3 contains additional examples specific to non-domestic installations.

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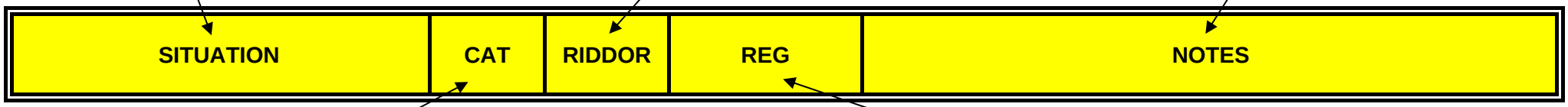
GUIDE TO THE COLUMN DESCRIPTIONS IN TABLES 1, 2 and 3

SITUATION
Describes the situation discovered.

RIDDOR
"R" denotes whether the situation should be reported to the HSE. See Clause 8 in Part 1 of this Procedure.

NOTES
This gives additional guidance including actions that may be required on site to protect life and/or property and ensure that legal requirements are met.



CATEGORY
Categorises how the situation should be classified:

ID – 'Immediately Dangerous' appliance/installation
AR – 'At Risk' appliance/installation
NCS – 'Not to Current Standards' appliance/installation

REGULATION
The Regulations/Acts that apply to the situation

Note: *GSIUR refers to the Gas Safety (Installation and Use) Regulations, 1998**.*
GSMR refers to the Gas Safety (Management) Regulations 1996.

**The GSIUR are available as 'The Approved Code of Practice and Guidance - Safety in the installation and use of gas systems and appliances' (CoP 20) - and is available from HSE Books.*
Visit: www.hsebooks.com/books

TABLE 1 – EXAMPLES OF UNSAFE AND NOTIFIABLE 'NCS' SITUATIONS

This Table is intended to give guidance to competent gas operatives regarding the categorisation of unsafe and notifiable 'NCS' situations.

	SITUATION	CAT	RIDDOR	REG	NOTES
1. GAS ESCAPES					
1.1	From primary meter with sealed outlet	ID	R*	GSIUR	Natural gas installations – For a list of contact details for gas ESPs, see page 2 of this Procedure. LPG installations – For a list of contact details for Gas Suppliers, see page 2 of this Procedure.
1.2	From bulk storage vessel or cylinder installation	ID		GSIUR	
1.3	Downstream of ECV (including primary meter and installation)				
	(1) Outside tolerance of tightness test.	ID	R*	GSIUR	
	(2) Within tolerance of tightness test, where there is a detectable smell of gas.	ID	R*	GSIUR	
1.4	Fire and/or Explosion	ID	R#	GSIUR GSMR	When making the gas installation safe, take care to cause minimal disturbance to the installation pending investigation. (See also Clause 5 of this Procedure).

Reportable by the public gas transporter (GT) (NG) or gas supplier (LPG) if cause of death or major injury
* Where due to the use of unsatisfactory fittings or workmanship

	SITUATION	CAT	RIDDOR	REG	NOTES
2. METERS AND/OR PRESSURE REGULATION – NATURAL GAS (FOR LPG SEE TABLE 2)					
2.1	No pressure regulator installed at primary meter	ID	R	GSIUR	Inform the Gas Emergency Contact Centre (See contact list on page 2 of this Procedure). ***Note:*** *Where a 1st family gas e.g. LPG and Air is in use, there may be no requirement for a meter regulator (in this case, check with the Gas Supplier).*
2.2	Medium pressure regulator relief valve discharging	ID		GSIUR	Inform ESP.
2.3	Blocked medium pressure regulator vent pipe, or inappropriately installed vent pipe e.g. pipe end submerged	AR		GSIUR	Inform ESP.
2.4	Meter and/or regulator showing significant signs of damage from, for example: • corrosive atmosphere, • mechanical damage or, • contact with electrical equipment	AR		GSIUR	For primary meters and/or regulators, inform the Gas Emergency Contact Centre (See contact list on page 2 of this Procedure). For secondary meters, inform the "Responsible Person". ***Note:*** *Be aware of the dangers of touching components of the installation which may be electrically live.*
2.5	No protective equipotential bonding connection provided at meter, or connection sited in wrong position	NCS		GSIUR	Inform the responsible person that protective equipotential bonding work should be carried out by an electrically competent person.
2.6	Meter regulator not sealed	NCS		GSIUR	Inform ESP.
2.7	Medium pressure fed meter installation without a meter inlet valve* (MIV) fitted * Also known as a test valve	NCS		GSIUR	Inform the Gas Transporter (GT) if known, otherwise inform the ESP.

	SITUATION	CAT	RIDDOR	REG	NOTES
2. METERS AND/OR PRESSURE REGULATION – NATURAL GAS – CONTINUED (FOR LPG SEE TABLE 2)					
2.8	Incorrect gas pressure to the inlet of the appliance caused by: a) Installation pipework b) Meter regulator or Network capacity	See Notes opposite		GSIUR GSMR	In the case of a, inform the gas user/responsible person. In the case of b, inform the ESP. Assess the risk to appliances, classify accordingly and advise the gas user or responsible person as follows: • For low pressure, providing that the appliance manufacturer's minimum specified burner pressure/gas heat input rating is available to all appliances, the 'NCS' category is appropriate. This should be determined when all the appliances are in operation at full rate. • If the incorrect pressure affects the safe operation of any appliance e.g. combustion and/or flame stability, then escalate the classification to 'ID' or 'AR' as appropriate, for the affected appliance(s).
2.9	Where required, no gas supply line diagram fixed at primary meter position	NCS		GSIUR	This requirement applies to installations with secondary meters. ***Note:*** *For non-domestic installations, see Table 3.*
3. METER BOX AND/OR COMPARTMENT					
3.1	Pathway for gas to enter property from meter box, e.g. damaged box, or installation pipework within the meter box entering the property without a sleeve	AR		GSIUR	Advise the gas user or responsible person that pipework must be sleeved and sealed and/or meter box repaired or replaced.
3.2 **See AMD2 02.11**	Medium pressure fed (or higher) meter installation and/or unprotected PE gas service pipe (e.g. not routed within a metallic sheath), located within a domestic premise	AR			Advise the gas user or responsible person to notify the gas supplier. ***Note:*** *There may be instances where this situation is acceptable in non-domestic premises.* Further risk assessment work will be undertaken to determine the actions that should be taken to manage the risk posed. For further guidance see Technical Bulletin 003 at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.

SITUATION		CAT	RIDDOR	REG	NOTES
3. METER BOX AND/OR COMPARTMENT – CONTINUED					
3.3	Low pressure installation pipework and/or protective equipotential bonding cable entering property from within a meter box via the rear exit meter box spigot route where the gas service/service pipework is medium pressure fed (e.g. BS 6400-2 (NG), BS 6400-3 (LPG)).	AR		GSIUR	Further risk assessment work will be undertaken to determine the actions that should be taken to manage the risk posed. For further guidance see Technical Bulletin 004 at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.
4. REPORTS OF "FUMES"					
4.1	CO detector alarm sounds or "fumes" reported: **1. Flued appliances:** Spillage and/or leakage of products of combustion occurring, or signs of occurrence (with no evidence that the problem has been corrected) **2. Flueless Appliances:** Evidence of poor combustion occurring	 ID ID	 R* R*	 GSIUR GSIUR	In all cases, if anyone appears to be unwell with symptoms that might be caused by exposure to CO, advise that medical attention is sought and make the gas installation safe and inform the ESP. Where there is no evidence of ill health: • observe adjacent appliance(s) for satisfactory flame picture; • examine and test for spillage and/or leakage as appropriate; • visually check **all** other appliances in the property for safety; • consider CO migration from another property e.g. in flats etc. If using an electronic portable combustion gas analyser to investigate reports of fumes, follow the guidance given in BS 7967 parts 1 – 3 inclusive. Once satisfied that the gas appliances are safe, they may be put back into operation. ***Note:*** *CO can be generated from sources other than gas appliances e.g. solid fuel and oil-fired appliances, or internal combustion engines. Discuss the safest course of action with the gas user or responsible person and advise them to contact a competent installer via the appropriate advisory body. Contact details are given below.* ***Note:*** *If the source of CO cannot be determined, contact the Emergency Services, e.g. Fire Service and/or Police.*
4.2 **See AMD2 02.11**	New row inserted see **AMD2 02.11**				
• If the source of CO is from an oil-fired appliance, contact OFTEC on 0845 658 5080, or www.oftec.co.uk for further advice; • If the source of CO is from a solid fuel burning appliance, contact The Solid Fuel Association on 0845 601 4406, or www.solidfuel.co.uk for further advice; • If the source of CO is from a source other than an appliance, e.g. a landfill site, contact the local authority environmental health department for further advice; • If drainage is the suspected source, contact the local water undertaker.					

* Where due to the use of unsatisfactory fittings or workmanship.

	SITUATION	CAT	RIDDOR	REG	NOTES
5. INSTALLATION PIPEWORK					
5.1	Pipework with an open end, connected to a gas supply	ID	R	GSIUR	Seal all open ends with an appropriate gas fitting.
5.2	Pipework and/or fittings of inappropriate material for purpose and liable to damage. For example, plastic water pipe or hose pipe	ID	R	GSIUR	While this may not pose an immediate threat to life or property, there is a high risk of accidental damage occurring which could cause a serious incident.
5.3	In emergency situations, where there is no access, restricted access, or no handle on the ECV	ID		GSIUR	Advise the gas user or responsible person that access is required at all times to isolate the gas supply in the event of an emergency situation. It is accepted that without access, the ECV cannot be turned off, but all appliances must be turned off and reported immediately to the ESP, or in the case of LPG the Gas Supplier.
5.4	In non emergency situations, where there is no access, restricted access, or no handle on the ECV	AR		GSIUR	Advise the gas user or responsible person that access is required at all times to allow isolation of the gas supply in the event of an emergency situation. Report to the ESP or in the case of LPG the Gas Supplier.
5.5	"Let-by" of any ECV which forms part of the tightness test	AR		GSIUR	For ECVs inform the Gas Emergency Contact Centre (See contact list on page 2 of this Procedure). Where there is a detectable smell of gas, this must be classified as a gas escape ('ID') (see section **1. GAS ESCAPES** in Table 1).
5.6	"Let-by" of any additional emergency control valve (AECV) which forms part of the tightness test	AR			Maintain or replace AECV prior to undertaking tightness test. Where there is a detectable smell of gas, this must be classified as a gas escape ('ID') (see section **1. GAS ESCAPES** in Table 1).
5.7	No AECV provided at the point of entry into the property where there is no adequate access to the ECV	AR		GSIUR	

	SITUATION	CAT	RIDDOR	REG	NOTES
5. INSTALLATION PIPEWORK – CONTINUED					
5.8	Pipework suitable for gas and/or gas type used in an inappropriate location and/or situation	AR	R	GSIUR	For example, PE pipework incorrectly installed within a building, or PE pipework exposed above ground level without suitable protection.
5.9	Pipework showing signs of corrosion or damage likely to affect safety	AR		GSIUR	Pipework that is not suitably protected against corrosion and positioned where it may suffer damage from corrosion, but not showing any visible signs of corrosion and/or damage, would normally be classified as 'NCS'.
5.10	Pipework significantly undersized preventing the appliance operating at the manufacturer's intended minimum gas heat input rating or affecting the safe operation of any appliance	AR		GSIUR	Undersized installations, which do not affect the safety of any appliance operation, or prevent any appliance(s) from operating at its minimum intended gas heat input rating, are normally classified as 'NCS'. If the undersized pipework affects the safe operation of any appliance e.g. combustion and/or flame stability, then escalate the classification to 'ID' or 'AR' as appropriate, for the affected appliance(s). See also entry under – **2. METERS AND/OR PRESSURE REGULATION – NATURAL GAS** (entry 2.8) in Table 1**.**
5.11	Gas pipework located within a cavity wall or void but not within a purpose-designed duct in accordance with appropriate standards	AR		GSIUR	Gas installation pipework (including fittings) located within a cavity wall, is considered to be at a higher risk than pipework passing through a non-sleeved cavity wall by the shortest route.
5.12	Gas pipework located within unventilated ducts or voids	AR		GSIUR	For exceptions in a non-domestic environment refer to IGEM/UP/2 Edition 2.
5.13	Pipework passing through any walls (including cavity walls), which are not sleeved or appropriately sealed	NCS		GSIUR	
5.14	Inadequately supported pipework	NCS		GSIUR	

	SITUATION	CAT	RIDDOR	REG	NOTES
6. AIR SUPPLY (VENTILATION)					
6.1	Open-flued and flueless appliances requiring a purpose provided permanent combustion air supply where **NONE** is provided	AR		GSIUR	Ventilation provided via a redundant flue or chimney, is not regarded as purpose provided ventilation and may affect the safe operation of open-flued appliances. For factory situations, with the exception of the above, all sources of ventilation may be considered.
6.2	Open-flued appliance installed in a compartment requiring purpose-provided high and low-level permanent air supply; providing **less than 90%** of the requirement for each ventilator position	AR		GSIUR	Both high and low level ventilation are required. Research has shown that correct sizing, position and configuration of air vents is essential to prevent vitiation occurring within the compartment. An air supply that is less than 10% undersized is unlikely to have a detrimental effect on the safe operation of the gas appliance. ***Note:*** *In the case of non-domestic plant room situations, specific guidance needs to be sought from the appliance manufacturer, or where appropriate the relevant industry standard, e.g. BS 6644 and/or IGE/UP/10 Edition 3.*
6.3	Open-flued and flueless appliances in rooms and internal spaces requiring a purpose-provided permanent combustion air supply with 0% to 89% of requirement	AR		GSIUR	90% to 100% of requirement is acceptable under Standards.
6.4	Air supply ventilators for open-flued and flueless appliances, which incorporate gauzes or fly screens or are closable	AR		GSIUR	Pest control mesh may be found on purpose provided ventilation found in commercial catering establishments or leisure accommodation vehicles which may not be a risk if clean and complying with relevant Standards/Procedures.

SITUATION		CAT	RIDDOR	REG	NOTES
6. AIR SUPPLY (VENTILATION) – CONTINUED					
6.5	Room-sealed appliances with signs of distress, where manufacturer's requirements for compartment ventilation are undersized or not provided	AR		GSIUR	Where there are **NO** signs of distress due to overheating, this should be classified as 'NCS'. ***Note:*** *Some modern appliances may not require compartment ventilation. Refer to manufacturer's instructions for guidance.*
6.6	Flueless cookers, installed in a room without direct access to outside air e.g. following the addition of a conservatory	AR		GSIUR	Reference should be made to BS 5440-2 and appliance manufacturer's instructions for particular room volume requirements. For further guidance see Technical Bulletin 005 (formerly TB 184) at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area. Following satisfactory risk assessment and implementation of appropriate safety measures, the level of risk may be reclassified as 'NCS'.
6.7	Flueless appliances including cookers, installed in a room of inadequate volume irrespective of ventilation provision. See also section **11. Water heaters** and section **12. Gas Fires (Including Flueless Fires) and/or Fireplaces** in Table 1	AR		GSIUR	Reference should be made to relevant Standards and appliance manufacturer's instructions for particular room volume requirements.
6.8	Compartment ventilation for open-flued appliances, cross ventilated i.e. from different sources (other than balanced compartments)	NCS		GSIUR	Cross ventilation can impact on the safety of the appliance, therefore, the performance of the appliance should be checked.
Note: *Where more than one flueing and/or ventilation 'NCS' situation is identified, the gas operative must assess the safety of the gas installation and decide whether the deficiencies are so serious to warrant the gas installation being classified as 'AR'. See Part 2 of this Procedure for further details. (See also section **7. FLUES (OPEN-FLUES)** 'NCS' situations in Table 1).*					

SITUATION		CAT	RIDDOR	REG	NOTES
7. FLUES (OPEN-FLUES)					
7.1	Products of combustion leaking into buildings including flues terminating in loft spaces	ID	R*	GSIUR	
7.2	Spillage occurring, or signs of spillage (with no evidence that the problem has been corrected)	ID	R*	GSIUR	Particular attention should be given to compartment installations.
7.3	Where the clearances around an open-flued appliance do not comply with the manufacturer's minimum requirements:				Where the clearances do not comply with the manufacturer's minimum requirements but there are gaps greater than 5mm all around the appliance, provided that the appliance is otherwise operating safely and there are no signs of distress, the installation should be classified as 'NCS'.
	1. Appliance showing signs of distress	ID	R	GSIUR	
	2. Appliances not showing signs of distress	AR		GSIUR	
	3. Open-flued appliance draught diverter is found to be completely enclosed	AR		GSIUR	
7.4	Incomplete or damaged flue or inadequate fixings and/or sealing	AR		GSIUR	Examples would include missing draught diverter, missing flue terminal and inadequate support.
7.5	Appliance connected to an unlined masonry (brick) chimney, which needs to be lined due to poor chimney condition e.g. failed flue-flow check (indicating a porous chimney only), where products of combustion are not entering the building.	AR		GSIUR	

* Where due to the use of unsatisfactory fittings or workmanship.

	SITUATION	CAT	RIDDOR	REG	NOTES
7. FLUES (OPEN-FLUES) – CONTINUED					
7.6	Two or more appliances connected to one flue either: 1. Appliance with no flame supervision device fitted 2. Appliances in separate rooms ventilated from different sides of the building 3. Where the flue is not designed for the purpose	 AR AR AR		 GSIUR GSIUR GSIUR	To rectify the situation: • disconnect and attach 'Do Not Use' 'Warning Labels' to all incorrectly installed appliances • seal the flue connections of each disconnected appliance • re-test for spillage
7.7	Natural draught wall-faced flue termination	AR		GSIUR	Not acceptable for **ANY natural draught** open-flued appliance installation. See Appendix 1 – Figure 4.
7.8	Natural draught wall adjacent flue termination	AR		GSIUR	Not acceptable for **ANY natural draught DOMESTIC** open-flued appliance installation. See Appendix 1 – Figure 5. For non-domestic installations, see Table 3.
7.9	Manual damper in place and not secured in the open position (domestic appliances)	AR		GSIUR	
7.10	Automatic flue damper not interlocked to appliance gas supply	AR		GSIUR	

	SITUATION	CAT	RIDDOR	REG	NOTES
7. FLUES (OPEN-FLUES) – CONTINUED					
7.11	Open-flues operating satisfactorily, but with less than 600mm vertical rise to the first bend (unless permitted by manufacturer's instructions)	NCS		GSIUR	It is important that all of these 'NCS' situations are reported to the gas user or responsible person. Where more than one flueing and/or ventilation 'NCS' situation is identified, the gas operative must assess the safety of the gas installation and decide whether the deficiencies are so serious to warrant the gas installation being classified as 'AR'. See Part 2 of this Procedure for further details. (See also section **6. AIR SUPPLY (VENTILATION)** 'NCS' situations in Table 1).
7.12	90^{o} bends or horizontal runs	NCS		GSIUR	
7.13	Unsatisfactory flue termination positions	NCS		GSIUR	
7.14	Incorrect use of flue material e.g. exposed flue liner	NCS		GSIUR	
7.15	Undersized flue pipe serving appliance with no evidence of adverse operation	NCS		GSIUR	
7.16	Unsuitable flue terminals	NCS		GSIUR	
8. FLUES (ROOM-SEALED)					
8.1	Flue terminating into an internal space e.g. conservatory	ID	R	GSIUR	
8.2	Fan assisted positive pressure type appliances with ineffectively sealed cases	ID	R*	GSIUR	For Industry guidance on checking the seals of fan assisted positive pressure room-sealed appliances, see Technical Bulletin 006 (formerly TB 127) at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.

* Where due to the use of unsatisfactory fittings or workmanship.

SITUATION		CAT	RIDDOR	REG	NOTES
8. FLUES (ROOM-SEALED) – CONTINUED					
8.3	Flue terminations in semi enclosed areas. Following an assessment: • it is found that combustion products are entering the property • there is a risk that combustion products may enter the building	ID AR	R	GSIUR GSIUR	Examples include, covered passageways (ginnells), carports which are restricted e.g. not open on two sides and/or lightwells. For industry guidance on how to classify flues terminating in covered passageways or ginnells, see Technical Bulletin 007 (formerly TB 150) at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area. Concentrated levels of combustion products in this context are those that can be measured using an electronic portable combustion gas analyser (ECGA) by means of an **ambient air assessment**, carried out in accordance with the procedure published in BS 7967-2. ***Note:*** *Additional sources of CO should always be considered.* See also section **10. APPLIANCES GENERAL – 10.6** – Failure to achieve satisfactory combustion readings when using an ECGA in Table 1.
8.4 **See AMD2 02.11**	Flue terminations located in positions which could allow combustion products to enter properties e.g. in close proximity to windows, doors and air vents. Following an assessment: • Concentration of combustion products entering the premises outside the acceptable limits of BS 7967 e.g. CO greater than 10ppm and rising	ID	R*	GSIUR	Where fumes are reported, see entry under **4. Reports of "Fumes"** (entry 4.1 Table 1). The gas user/responsible person should be advised that if they smell fumes, then they should immediately turn the appliance(s) off, ventilate the room and contact the ESP. Concentrated levels of combustion products in this context are those that can be measured using an ECGA by means of an **ambient air assessment**, carried out in accordance with the procedure published in BS 7967-2 which indicates CO readings greater than 10ppm and rising. However, the limitations of such testing need to be recognised, e.g. prevailing weather conditions, etc. on the day of testing compared to the day when report was made. Therefore, the gas user/responsible person should be advised that if the problem persists then they should immediately turn the appliance off, ventilate the room and contact the ESP. Consideration should also be given to the installation of a suitable audible CO alarm(s). ***Note:*** *Additional sources of CO should always be considered.*

* Where due to the use of unsatisfactory fittings or workmanship.

	SITUATION	CAT	RIDDOR	REG	NOTES
8. FLUES (ROOM-SEALED) – CONTINUED					
8.5	Flue termination positions which are not in accordance with the manufacturer's installation instructions and/or Standards, or terminating where they may cause a nuisance i.e. discharging over boundaries or public access areas	NCS		GSIUR	Compliance with the dimensional requirements set by appliance manufacturers for flue termination positions should not be a gas operative's only consideration in choosing a suitable flue termination location.
9. FLUES IN VOIDS					
9.1 **see AMD2 02.11**	Break in flue system or signs of distress to the material of the enclosure/ceiling around the flue where further investigation is prevented (see **NOTES** opposite).	ID	R*	GSIUR	Where a flue route cannot be inspected, a risk assessment must be carried out. Visual checks for signs of distress to the material of the enclosure/ceiling around the flue route need to be undertaken along with questioning of the user to ascertain any history of problems. The maximum flue length needs to be checked against the manufacturer's instructions along with correct termination requirements. If possible, flue gas analysis needs to be undertaken. Where the above tests are satisfactory, (or where an excessive flue length does not affect the safe operation of the appliance) the situation may be classified as 'NCS'. For further guidance see relevant Technical Bulletin 008 (formerly TB 200) at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.
9.2 **see AMD2 02.11**	Incorrect grade of plastic flue used, where there are either signs of distress such as cracking and/or discolouration, or it is not possible to visually inspect the entire flue system (see **NOTES** opposite).	AR			
9.3 **See AMD2 02.11**	Incorrect jointing methods used with no visible signs of a break or leakage (see **NOTES** opposite).	AR			
9.4 **see AMD2 02.11**	Unable to obtain a satisfactory flue gas analysis reading (see **NOTES** opposite).	AR			
9.5 **See AMD2 02.11**	Incorrect grade of plastic flue pipe used where there were no signs of distress and it has been possible to inspect the entire flue (see **NOTES** opposite).	NCS			
See AMD2 02.11	4 further 'Situations' have been added to this section see **AMD2 02.11**				

* Where due to the use of unsatisfactory fittings or workmanship.

	SITUATION	CAT	RIDDOR	REG	NOTES
10. APPLIANCES (GENERAL)					
10.1	Appliances, which should be flued, but are not flued	ID	R	GSIUR	
10.2	Appliances which are unsafe due to inadequate maintenance	ID		GSIUR	
10.3	Not suitable for use with the gas supplied	ID	R	GSIUR	Refer the responsible person to the installer of the appliance.
10.4	Gas controls and safety devices that affect the safe operation of a gas appliance, which are inoperative, failing to danger, or are disabled	ID	R*	GSIUR	Examples of devices include flame supervision devices (FSDs), regulators, spillage monitoring devices (e.g. TTBs, ASDs), air pressure switches etc. ***Note:*** *For Non-domestic situations, see Table 3.*
10.5	Natural draught flued appliances that are spilling or leaking combustion products into a room or internal space	ID	R*	GSIUR	As well as appliances spilling combustion products due to flueing and/or ventilation deficiencies, this will also include those circumstances where appliance combustion chambers and/or heat exchangers are leaking combustion products, or sight glass, window or case seals are faulty or missing.
10.6	Failure to achieve satisfactory combustion readings when using an electronic portable combustion gas analyser: • Flueless appliances • Flued appliances	 ID AR	 R* R*	 GSIUR GSIUR	**General Notes for further guidance** Satisfactory combustion readings may include CO, CO_2, or CO/CO_2 combustion ratios. See specific appliance manufacturer's installation instructions, or the appropriate parts of BS 7967.
10.7	Evidence of distress to functional components of an appliance or adjacent combustible materials	AR		GSIUR	
10.8	Flueless or non-room-sealed appliance in room containing a bath or shower	AR		GSIUR	Appliances installed **before** November 1984 which are otherwise safe and operating satisfactorily should normally be classified as 'NCS'. This includes cookers etc. installed in a room containing a bath or shower e.g. bedsitting rooms.

* Where due to the use of unsatisfactory fittings or workmanship.

SITUATION		CAT	RIDDOR	REG	NOTES
10. APPLIANCES (GENERAL) – CONTINUED					
10.9	Flueless or non-room-sealed space heating or water heating appliance(s) over 14kW heat input (gross), or under 14kW heat input (gross) without a built-in atmosphere sensing device, installed **after** 1st January 1996 in bedrooms or bed-sitting rooms	AR		GSIUR	Appliances installed **before** 1st January 1996 which are otherwise safe and operating satisfactorily should normally be classified as 'NCS'.
10.10	In rented accommodation, appliances installed in a room or rooms which have later been converted into bedrooms **after** 31st October 1998, where the appliances do **not** comply with the current requirements for gas appliances in bedrooms	AR		GSIUR	Appliances installed in rooms converted into bedrooms **before** 31st October 1998 which are otherwise safe and operating satisfactorily should normally be classified as 'NCS'. Short term use of living rooms etc. as bedrooms due to ill health may be classified as 'NCS', but with additional measures recommended, e.g. CO alarms. For further information go to www.hse.gov.uk/gas/index.htm
10.11	Flexible gas connection to a flued domestic appliance	AR		GSIUR	This requirement does not apply to gas-fired tumble dryers installed to the requirements of BS 7624.
10.12	Appliance which is found to be not secure and/or stable so that it is potentially unsafe	AR		GSIUR	A stable free-standing cooking appliance using a flexible connection without a stability device secured to the fabric of the building (e.g. stability bracket or chain) would normally be classified as 'NCS'.
10.13 see **AMD2 02.11**	Appliance installed onto a sealed heating system: • without pressure relief controls • with pressure relief controls, but without overheat temperature protection	 AR NCS		 GSIUR	Any appliance not approved for installation onto a sealed system should be classified as 'AR'.

	SITUATION	CAT	RIDDOR	REG	NOTES
11. WATER HEATERS					
11.1	Flueless or open-flued instantaneous water heating appliances without a built-in atmosphere-sensing device (ASD) installed **after** 31st October 1998	AR		GSIUR	Appliances installed **before** 31st October 1998 which are otherwise safe and operating satisfactorily, should be classified as 'NCS'.
11.2	Flueless instantaneous water heating appliances with a built-in ASD installed at any time, in a room or internal space of inadequate volume	AR		GSIUR	Appliances with a built-in ASD installed **before** 1st August 2005, which are otherwise safe and operating satisfactorily, should be classified as 'NCS'.
11.3	Flueless water heating appliance supplying remote hot water outlet(s)	AR			
11.4	Flueless water heating appliances without a five minute warning label fitted	NCS		GSIUR	
12. GAS FIRES (INCLUDING FLUELESS FIRES) AND/OR FIREPLACES					
12.1	Builder's opening inadequately sealed	AR		GSIUR	There should be no gaps within the builder's opening other than the fireplace opening and the flue itself.
12.2	Gas fire fitted to 'letterbox' opening or with inadequate catchment space	AR		GSIUR	
12.3	No closure plate fitted (where required), or inadequately sealed	AR		GSIUR	

SITUATION		CAT	RIDDOR	REG	NOTES
12. GAS FIRES (INCLUDING FLUELESS FIRES) AND/OR FIREPLACES – CONTINUED					
12.4	Gas fire fitted on carpet – burner **less** than 225mm above carpet with damage evident	AR		GSIUR	Where no damage is evident, the installation should normally be classified as 'NCS'.
12.5	Gas fire with a re-painted case, showing heat damage not caused by spillage	AR			Gas fires with re-painted cases and no signs of heat damage evident should normally be classified as 'NCS'.
12.6	Combustible materials located within builder's opening and showing signs of heat damage or scorching	AR		GSIUR	Where combustible material is found to be located within a builder's opening and shows no signs of distress, this should normally be classified as 'NCS'.
12.7	Flueless gas fire installed in a room or internal space where the air vent is incorrectly positioned (BS 5871-4)	NCS			Refer to manufacturer's installation instructions for correct positioning.
13. COMBINED GAS FIRE BACK BOILERS AND BACK BOILER UNITS					
13.1	Builder's opening that is not sealed i.e. around the flue liner, water and/or gas pipework	AR		GSIUR	Seal all unsealed openings, i.e. around flue liner, water and/or gas pipework. Where the flue liner and/or chimney annulus alone is not sealed and it cannot practicably be sealed; providing there is no evidence of spillage or flame reversal and it is otherwise safe and operating satisfactorily it may be classified as 'NCS'. For further guidance, see Technical Bulletin 009 (formerly TB 224) at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.

SITUATION		CAT	RIDDOR	REG	NOTES
14. WARM AIR HEATERS					
14.1	Unsealed plenum or ducting in appliance compartment affecting the safe operation of the appliance	ID	R	GSIUR	Where an unsealed plenum is encountered which does **not** affect the safe operation of the appliance, the installation should be classified as 'AR'.
14.2	Open-flued warm air heater with fan-assisted warm air circulation installed in a compartment without a positive return air connection	AR		GSIUR	Where a domestic open-flued warm air heater with fanned warm air circulation without a positive return air arrangement is encountered, then it may be possible to fit a return air duct, otherwise the appliance manufacturer should be consulted. In many cases, particularly with older appliances, this will not be possible and the gas user or responsible person should be advised to replace the appliance. ***Note:*** *For Non-domestic situations, see Table 3.*
14.3	Open-flued warm air heater with fan-assisted warm air circulation with inadequate provision for return air path	AR		GSIUR	

TABLE 2 – ADDITIONAL EXAMPLES OF SPECIFIC UNSAFE AND NOTIFIABLE 'NCS' SITUATIONS FOR LPG INSTALLATIONS

This Table is intended to give guidance to competent gas operatives regarding the categorisation of unsafe and notifiable 'NCS' situations specific to installations using **LPG**.

	SITUATION	CAT	RIDDOR	REG	NOTES
1. LIQUEFIED PETROLEUM GAS (LPG) BULK STORAGE					
1.1	Vessel(s) located within a building	ID	R*		Inform the Gas Supplier.
1.2	Above-ground vessel(s) without a pressure relief valve	ID	R*		Inform the Gas Supplier.
1.3	Vessel(s) too close to fixed ignition source**	AR			Inform the Gas Supplier. (A fire wall is an acceptable method for reducing separation distances).
1.4	Vessel(s) without impact protection (e.g. bollards, kerbstone etc.) located in a position susceptible to vehicle collision**	AR			Inform the Gas Supplier. Where public access to the vessel is controlled (e.g. by security systems) and following risk assessment, the situation may be classified as 'NCS'.
1.5	Vessel(s) without a stable base**	AR			Inform the Gas Supplier. Vessel without a suitable base may be classified as 'NCS'.
1.6	Vessel(s) positioned too close to overhead power lines**	AR			Inform the Gas Supplier. (The Gas Supplier may be able to carry out a site-specific risk assessment).
1.7	Vessel(s) too close to a known un-trapped drain and drain cover is not sealed**	AR			Inform the Gas Supplier.
1.8	Vessel(s) not in a compound where valves and/or controls are accessible by the general public**	AR			Inform the Gas Supplier.
1.9	Vessel(s) that has a gas content greater than 95%	AR			Inform the Gas Supplier. (In this instance it may be appropriate to leave the supply on unless the vessel(s) is hydraulically full).
1.10	Vessel(s) too close to building**	NCS			Inform the Gas Supplier.

* Where due to the use of unsatisfactory fittings or workmanship.

** For detailed guidance on separation and siting distances see UKLPG CoP1 - Part 1, UKLPG CoP1 - Part 2 and UKLPG CoP 1 - Part 4, as appropriate.

	SITUATION	CAT	RIDDOR	REG	NOTES
1. LIQUEFIED PETROLEUM GAS (LPG) BULK STORAGE – CONTINUED					
1.11	Separation distance between vessels insufficient**	NCS			Inform the Gas Supplier
1.12	Vessel(s) too close to an oil storage tank**	NCS			Inform the Gas Supplier
1.13	Below-ground vessel(s) with decking fitted above	NCS			Inform the Gas Supplier
1.14	Vessel(s) surrounded by vegetation	NCS			Inform the Gas Supplier
1.15	Vessel(s) without adequate fire protection measures**	NCS			Inform the Gas Supplier
1.16	Above-ground vessel(s) without an appropriate pressure relief valve adaptor	NCS			Inform the Gas Supplier
1.17	Vessel(s) too close to a boundary or property line**	NCS			Inform the Gas Supplier
1.18	Vessel(s) too close to combustible material e.g. shed or fence**	NCS			Inform the Gas Supplier
2. LIQUEFIED PETROLEUM GAS (LPG) CYLINDER STORAGE					
2.1	Cylinder(s) stored in a basement	AR		GSIUR	Advise gas user or responsible person to move the cylinder(s). Inform gas (cylinder) supplier and/or filler if gas user or responsible person refuses to reposition the cylinder(s).
2.2	Propane cylinder(s) stored and/or used within a domestic premises	AR		GSIUR	Advise gas user or responsible person to move the cylinder(s). Inform gas (cylinder) supplier and/or filler if gas user or responsible person refuses to reposition the cylinder(s).
2.3	Cylinder(s) without a suitable stable base	AR			
2.4	Cylinder(s) sited too close to opening into building (e.g. door, openable window, ventilator, appliance flue terminal etc.)	AR			For detailed guidance on separation and siting distances see BS 5482-1.
2.5	Cylinder(s) sited too close to a known un-trapped drain and drain cover not sealed	AR			For detailed guidance on separation and siting distances see BS 5482-1.

** For detailed guidance on separation and siting distances see UKLPG CoP1 - Part 1, UKLPG CoP1 - Part 2 and UKLPG CoP 1 - Part 4, as appropriate.

SITUATION		CAT	RIDDOR	REG	NOTES
2. LIQUEFIED PETROLEUM GAS (LPG) CYLINDER STORAGE – CONTINUED					
2.6	Cylinder(s) sited too close to fixed ignition source	AR			For detailed guidance on separation and siting distances see BS 5482-1.
2.7	Cylinder(s) sited and/or stored within a dwelling, high-rise building, boat cabin, or leisure accommodation vehicle (LAV) that do not meet safety and installation criteria	AR		GSIUR	Propane cylinders are not permitted within these locations. Butane cylinders may be stored for use in a permanent dwelling, provided they are no more than 15kg total capacity per unit dwelling and located within 0.5h fire rated compartments with adequate ventilation direct to outside air. (See BS 5482-1, BS EN ISO 10239 and/or PD 5482-3 as appropriate). Butane cylinders should not be used in high-rise un-strengthened large panel system-built flats, or any traditionally built high-rise flat above five storeys in height. Inform the owner of the building.
2.8	Four or more cylinders connected to an automatic change over device without OPSO protection	AR		GSIUR	
2.9	Marine cylinder(s) location or locker that is not vapour tight to the craft interior, is accessible from inside the craft interior and does not provide for adequate drainage facilities for LPG to vent directly overboard, or for adequate ventilation direct from outside the vessel	AR		GSIUR	For guidance see BS EN ISO 10239 and/or PD 5482-3 as appropriate.
2.10	Cylinder(s) not positioned adjacent to a wall or other suitable structure	NCS			
2.11	Cylinder regulator fitted at a height below that of the cylinder outlet valve	NCS			Inform the responsible person that the regulator should be repositioned above the height of the cylinder outlet valve so that any liquid phase propane (condensing in the hose) will fall back into the cylinder and prevent regulating equipment failure. For further guidance, see Technical Bulletin 010 (formerly TB 210) at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.
Note: *Any unwanted LPG cylinders should be returned to the cylinder dealer or gas supplier (where known), or local authority.*					

	SITUATION	CAT	RIDDOR	REG	NOTES
3. LIQUEFIED PETROLEUM GAS (LPG) PRESSURE REGULATORS, METERS & METER COMPARTMENTS					
3.1	Bulk storage vessel(s) installation without an appropriate regulator	ID	R*	GSIUR	Inform the Gas Supplier.
3.2	Vapour off-take cylinder(s) with no regulator fitted	ID	R*	GSIUR	
3.3	Regulator located within a building and fitted with a limited capacity relief device not piped directly to a safe position outside the building	AR			See BS 5482-1 for further guidance.
3.4	Bulk-storage vessel(s) installation without UPSO protection	AR		GSIUR	Inform the Gas Supplier.
3.5	Meter and/or regulating equipment not suitable for use with LPG, damaged, tampered with, or in poor condition	AR		GSIUR	Inform the Gas Supplier and/or filler and where appropriate the gas user or responsible person.
3.6	Blocked medium pressure vent pipe, or inappropriately installed vent pipe (e.g. pipe end submerged).	AR		GSIUR	Inform the Gas Supplier.
3.7	Meter and/or regulator showing significant signs of damage from, for example: • corrosive atmosphere; • mechanical damage or; • contact with electrical equipment.	AR		GSIUR	Inform the Gas Supplier. ***Note:*** *Be aware of the dangers of touching components of the installation which may be electrically live.*
3.8	Medium pressure fed meter installation located within a domestic premise	AR		GSIUR	Inform the Gas Supplier. For further guidance see Technical Bulletin 003 at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area. ***Note:*** *There may be instances where this situation is acceptable in non-domestic premises.*
3.9	Pathway for gas to enter property from meter box (e.g. damaged box, installation pipework within meter box entering the property without a sleeve, or protective equipotential bonding exiting the rear of the meter box etc.)	AR		GSIUR	Advise the gas user or responsible person that pipework must be sleeved and sealed and/or meter box repaired or replaced. Advise the owner of the central storage installation (often the Gas Supplier).

* Where due to the use of unsatisfactory fittings or workmanship.

	SITUATION	CAT	RIDDOR	REG	NOTES
3. LIQUEFIED PETROLEUM GAS (LPG) PRESSURE REGULATORS, METERS & METER COMPARTMENTS – CONTINUED					
3.10	Regulator seal broken or tampered with	NCS		GSIUR	Inform the Gas Supplier and/or filler.
3.11	No protective equipotential bonding connection provided at meter or connection sited in wrong position	NCS		GSIUR	Inform the gas user or responsible person that protective equipotential bonding work should be carried out by an electrically competent person.
3.12	Incorrect gas pressure to the inlet of the appliance caused by: a. Installation pipework b. Pressure regulator c. Vessel off-take capacity d. Service pipework	See Note opposite		GSIUR	In the case of a, inform the gas user/responsible person. In the case of b, c & d inform the gas supplier. Assess the risk to appliances, classify accordingly and advise the gas user or responsible person as follows: • For low pressure, providing that the appliance manufacturer's minimum specified burner pressure/gas heat input rating is available to all appliances, an 'NCS' classification is appropriate. This should be determined when all the appliances are in operation at full rate. • If the incorrect pressure affects the safe operation of any appliance e.g. combustion and/or flame stability, then escalate the classification to 'ID', or 'AR' as appropriate, for the affected appliance(s).
4. LIQUEFIED PETROLEUM GAS (LPG) SERVICE PIPEWORK					
4.1	PE service pipework subjected to first stage (vapour) pressure without OPSO protection	AR		GSIUR	Inform the Gas Supplier.
4.2	PE service pipework operating at medium pressure without OPSO protection	AR		GSIUR	Inform the Gas Supplier (medium pressure pipework is that operating above 75mbar and less than or equal to 2bar).
4.3	PE service pipework entering a building without a suitable gas tight metallic sheath	AR			Inform the Gas Supplier.
4.4	Medium pressure service pipework located within a domestic premise	AR		GSIUR	Inform the Gas Supplier (medium pressure pipework is that operating above 75mbar and less than or equal to 2bar).

	SITUATION	CAT	RIDDOR	REG	NOTES
4. LIQUEFIED PETROLEUM GAS (LPG) SERVICE PIPEWORK – CONTINUED					
4.5	Service pipework in an unventilated void	AR			Inform the Gas Supplier.
4.6	Service pipework installed beneath a building foundation, base of a load bearing wall, or a floating raft foundation	AR			Inform the Gas Supplier.
4.7	Above ground service pipework not adequately protected	AR			Inform the Gas Supplier.
4.8	Service pipework fitted without an ECV	AR			Inform the Gas Supplier.
4.9	Service pipework showing signs of corrosion or damage likely to affect safety	AR		GSIUR	Pipework that is not suitably protected against corrosion and positioned where it may suffer damage from corrosion, but not showing any visible signs of corrosion and/or damage, would normally be classified as 'NCS' following an appropriate risk assessment.
5. LIQUEFIED PETROLEUM GAS (LPG) APPLIANCES (IN ADDITION TO GUIDANCE GIVEN IN TABLES 1 & 3)					
5.1	Appliance(s) with automatic ignition device or a pilot light, installed in a room below ground level, unless open to above ground level on at least one side	AR		GSIUR	It is acceptable to install such appliances in rooms which are basements with respect to one side of the building, but open to ground level on the opposite side. ***Note:*** *An appliance without automatic ignition installed in a room below ground level, can be classified as 'NCS'.*
6. GENERAL (IN ADDITION TO GUIDANCE GIVEN IN TABLES 1 & 3)					
6.1	Leisure accommodation vehicles (LAVs) (e.g. static caravan holiday homes) and residential park homes, with base area filled in, blocking under floor ventilation system	AR		GSIUR	Ventilation of the under floor void is needed to provide air for appliance combustion within the living space and additional ventilation at low level for the void and/or base area to disperse any leakage of LPG.
6.2	LPG hose insecure, or shows signs of wear, distress, damage, chafing, cuts, splits etc., or is of a type not suitable for LPG	AR		GSIUR	The LPG hose should be secured using suitable clips at both ends. ***Note:*** *Worm drive clips may be acceptable for some hoses. For further guidance see relevant Technical Bulletin 011 (formerly TB 233) at:* https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.

TABLE 3 – ADDITIONAL EXAMPLES OF SPECIFIC UNSAFE AND NOTIFIABLE 'NCS' SITUATIONS FOR NON-DOMESTIC INSTALLATIONS

This Table is intended to give guidance to competent gas operatives regarding the categorisation of unsafe and notifiable 'NCS' situations specific to **non-domestic** installations.

	SITUATION	CAT	RIDDOR	REG	NOTES
1. PRESSURE RAISING EQUIPMENT AND ELEVATED PRESSURE PIPEWORK					
1.1	Pressure raising equipment in an inappropriate or inadequately ventilated location or incorrectly installed	AR			
1.2	Low-pressure protection not fitted, bypassed, or inoperable	AR		GSIUR	
1.3	Non-return valve not fitted, or if fitted, not functioning	AR		GSIUR	
2. FLUEING AND AIR SUPPLY					
2.1	Any form of mechanically assisted flueing and/or ventilation system not interlocked to the appliance gas supply	AR		GSIUR	See also section **4. COMMERCIAL CATERING** in Table 3.

	SITUATION	CAT	RIDDOR	REG	NOTES
3. FLUEING					
3.1	Natural draught open-flued wall adjacent flue termination	AR		GSIUR	For **EXISTING** installations in **FACTORIES** that were installed before 1990 and in the opinion of the gas operative exercising their professional judgement, are judged to be safe and operating satisfactorily (see Appendix 1 - Figure 5), such installations may be classified as 'NCS'.
4. COMMERCIAL CATERING					
4.1	Existing kitchen installation with no ventilation system interlock provision	See Note opposite		GSIUR	Follow a risk assessment as set out in HSE Catering Information Sheet (CAIS) Number 23, the relevant category and actions should be applied.
4.2	Powered extraction ventilation system (canopy) for kitchen without provision for air entry or make-up air	AR		GSIUR	
4.3	Appliance with enclosed burner without a flame supervision device (FSD)	AR		GSIUR	Existing appliances without FSDs that are only operated by trained nominated persons can be classified as 'NCS'. Historical evidence shows that a high number of incidents have occurred with these types of appliances and the recommendation in HSE CAIS Number 3 – (dated 1995) and subsequently reinforced in HSE CAIS Number 23 – (dated February 2007), is that they should be upgraded with manufacturer's kits where practicable or replaced.
4.4	Deep fat fryers and other appliances where a high temperature limit thermostat is required, but is failing to operate, or is not fitted	AR		GSIUR	

	SITUATION	CAT	RIDDOR	REG	NOTES
5. WARM AIR HEATERS					
5.1	Open-flued warm air heater with fan-assisted warm air circulation installed in a Plant Room, with inadequate provision for a return air path	AR		GSIUR	For appliances installed in Plant Rooms, in non-domestic situations, without a positive return air connection, the installation can be classified as 'NCS', providing that the ventilation to the Plant Room is sufficient to prevent depressurisation of the room affecting flue performance.
6. METER INSTALLATIONS					
6.1	Non-domestic meter compartment ventilated internally into Boiler House or Plant Room	AR		GSIUR	Ventilation for meter compartments should communicate directly with outside air. Gas operatives competent in the installation and maintenance of non-domestic meters should refer to guidance published in IGE/GM/6 or IGE/GM/8 as appropriate. Otherwise advise the gas user/responsible person that they should contact the relevant Gas Supplier to seek particular advice.
6.2	Where required, no gas supply line diagram fixed at primary meter position	NCS		GSIUR	
6.3	Insufficient ventilation of a non-domestic meter compartment	NCS		GSIUR	
7. MISCELLANEOUS ISSUES					
7.1	Situation where an appliance could be a potential ignition source within a hazardous area, i.e. where a flammable atmosphere may occur	AR			This applies to all places of work including commercial garages, where particular appliance types and/or electrical control systems are installed in inappropriate locations. Gas operatives should refer to guidance published in BG IM/28 and other appropriate industry standards.
7.2	Where an automatic isolation system is installed and appliances are connected without adequate automatic FSDs on **all** appliances	AR			Following satisfactory risk assessment, implementation of additional safety measures or safe systems of work, the level of risk may be classified as 'NCS'. Examples may include gas, fire or smoke detection systems.

Appendix 1 - Guidance for Non-domestic situations outside the scope of GSIUR only

Figure 4. Wall-faced flue termination

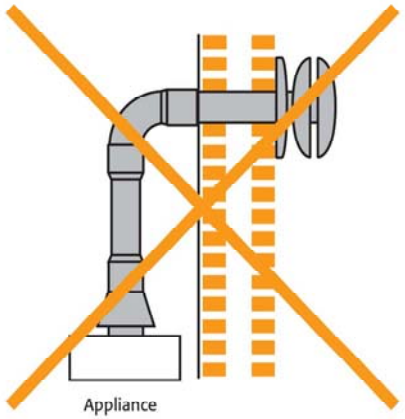
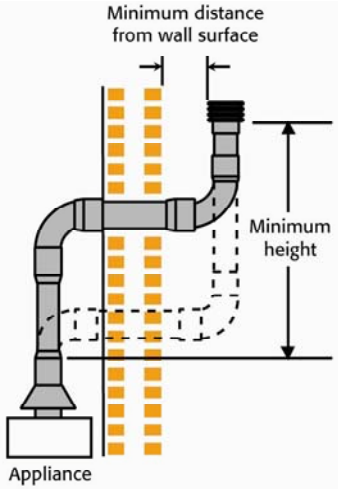


Figure 5. Wall adjacent flue termination



Wall-faced terminations are unacceptable for **ALL** domestic and non-domestic open-flue installations and must be classified as **AT RISK (AR)** (see Figure 4).

Wall adjacent terminations are unacceptable for **ALL** domestic open-flue installations, but may be acceptable for some existing non-domestic open-flue installations in Factories.
See **Minimum requirements for Figure 5.**

Minimum requirements for Figure 5

Note – Wall adjacent terminations are not permitted for **ANY** new natural draught open-flue installations.

Where they are acceptable for existing installations in **FACTORIES** and are deemed by the gas operative to be operating safely, they can be classified as Not to Current Standards (NCS) providing that the following conditions are met:

1. The flue must have a minimum height of 1.2m.
2. The flue terminal must be at least 250mm from the wall surface.
3. The configuration is acceptable with up to 1.2m of horizontal flue.
4. The flue terminal must be at least 600mm away from any opening into the building.
5. The flue terminal must not be within 1.0m of the underside of the eaves or a balcony.

If the minimum requirements cannot be met, the installation must be classified as AT RISK (AR).

The gas operative should include the following factors in deliberations:

- Size and purpose of the space containing the appliance;
- Number of air changes;
- Age and condition of the appliance;
- Appliance combustion performance;
- Period and frequency the appliance is in use.

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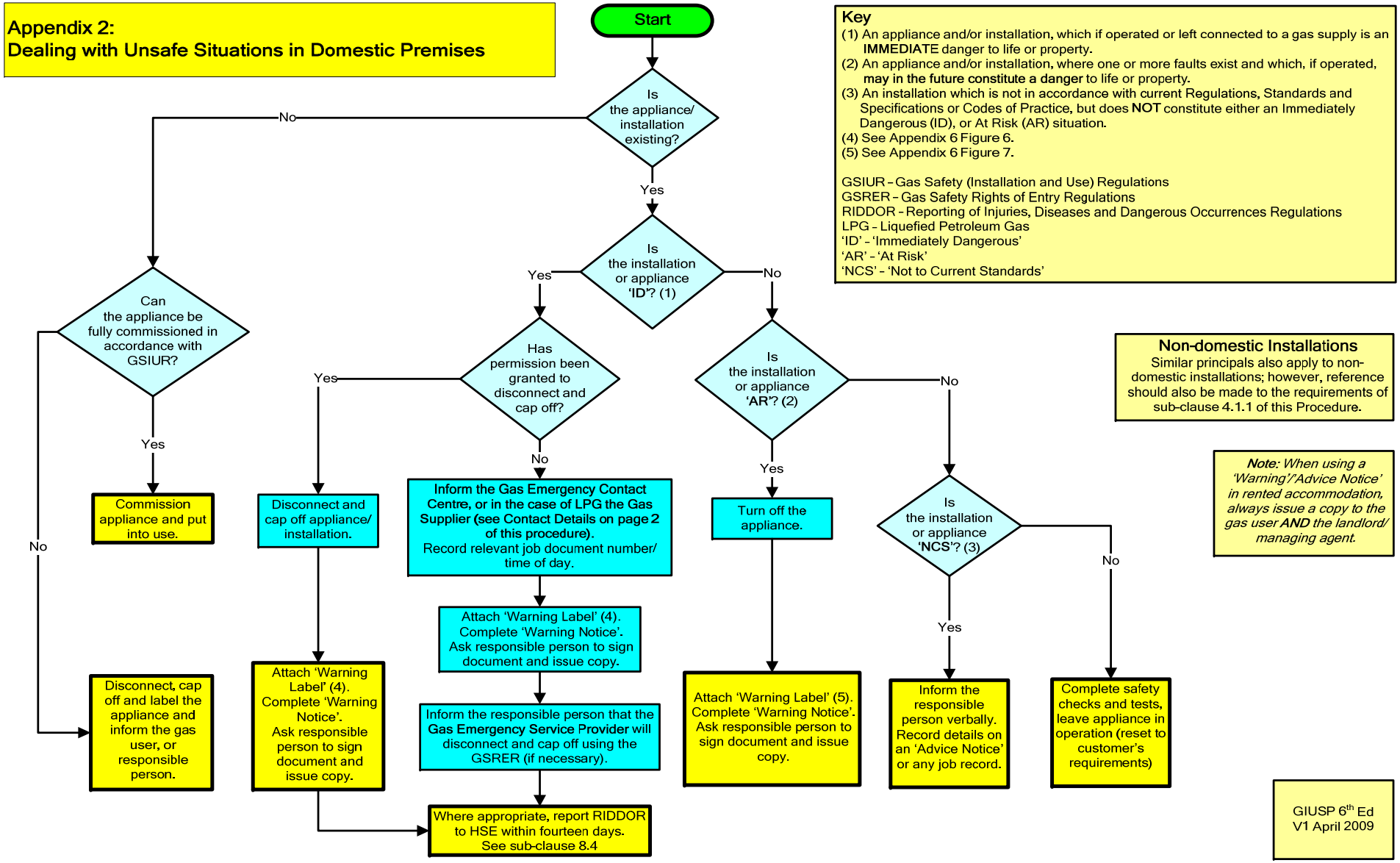
Appendix 2:
Dealing with Unsafe Situations in Domestic Premises



Key

(1) An appliance and/or installation, which if operated or left connected to a gas supply is an **IMMEDIATE** danger to life or property.
(2) An appliance and/or installation, where one or more faults exist and which, if operated, **may in the future constitute a danger** to life or property.
(3) An installation which is not in accordance with current Regulations, Standards and Specifications or Codes of Practice, but does **NOT** constitute either an Immediately Dangerous (ID), or At Risk (AR) situation.
(4) See Appendix 6 Figure 6.
(5) See Appendix 6 Figure 7.

GSIUR – Gas Safety (Installation and Use) Regulations
GSRER – Gas Safety Rights of Entry Regulations
RIDDOR – Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
LPG – Liquefied Petroleum Gas
'ID' – 'Immediately Dangerous'
'AR' – 'At Risk'
'NCS' – 'Not to Current Standards'

Non-domestic Installations
Similar principals also apply to non-domestic installations; however, reference should also be made to the requirements of sub-clause 4.1.1 of this Procedure.

***Note:** When using a 'Warning'/'Advice Notice' in rented accommodation, always issue a copy to the gas user **AND** the landlord/ managing agent.*

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Appendix 3 – Glossary of Terms and Definitions	
Terms	**Definitions**
ACS	An acronym for the Nationally Accredited Certification Scheme for Individual Gas Fitting Operatives.
Additional Emergency Control Valve (AECV)	A valve, not being the ECV, for shutting off the supply of gas in an emergency, intended for use by a consumer of gas. An AECV may be located within either the meter installation or installation pipework and as such, may not isolate all of the consumer's pipework or meter installation. (See also **Emergency Control Valve (ECV**)).
Appliance compartment	An enclosure (not being a habitable space) specifically designed or adapted to house one or more gas appliances only.
Appropriate fitting	Means a fitting which has been designed for the purpose of effecting a gas tight seal in a pipe or other gas way, which achieves that purpose when fitted and is secure, so far as is reasonably practicable, against unauthorised opening or removal.
Atmosphere Sensing Device (ASD)	A device that shuts off the gas supply to an appliance burner before there is a build-up of a dangerous quantity of combustion products in the room concerned (also known as an oxygen depletion system).
'At Risk' ('AR')	An 'At Risk' ('AR') appliance and/or installation is one where one or more faults exist and which, as a result, if operated, **may in the future constitute a danger** to life or property.
Bedsitting room	Any room or space used for living and sleeping purposes.
Commissioning	Initial start-up of an installation to check and adjust for safe and reliable operation.
Competence	Competence in safe gas installation work requires gas operatives to have enough knowledge, practical skill and experience to carry out the job in hand safely, with due regard to good working practice. Knowledge must be kept up-to-date with awareness of changes in law, technology and safe working practice.
Gas Safe Register	The registration body approved by the HSE to maintain the register of competent gas businesses.
Defect	For the purposes of this Procedure, 'Defect' can be defined as either of the following: • Those situations that are listed in GIUSP as 'ID' or 'AR' (including 'NCS' situations that stack to 'AR'). **However the list provided is not definitive.** • Those situations that **did not** meet the appropriate British Standard, manufacturer's instructions, or other relevant industry normative document at the time of installation and affect safety. ***Note:*** *All flueing and ventilation 'NCS' situations should be brought to the attention of the gas user or responsible person.*
Disconnect	To isolate the appliance and/or installation from the gas supply using a permanent means of disconnection i.e. plug or cap off the supply.
Domestic installations	Are those installed in buildings designed for dwelling purposes including dwelling houses, flats and student accommodation, where the gas installation pipework is normally no greater in size than 35mm (R1¼) diameter, where the appliances installed are designed for domestic purposes and have a maximum heat input rating no greater than 70kW (Net).
Downstream	That part of a gas installation after a certain point e.g. the appliance is downstream of the gas meter.
Emergency Control Valve (ECV)	A valve, not being an "Additional Emergency Control Valve" (AECV) for shutting off the supply of gas in an emergency, intended for use by a consumer of gas and being installed at the end of a gas service or gas distribution main. The outlet of the ECV terminates and thus defines the end of the Network.
Emergency Service Provider (ESP)	Means a person appointed pursuant to regulation 7(11) of the GSMR.

Appendix 3 – Glossary of Terms and Definitions (Continued)	
Terms	**Definitions**
Enforcing Authority	An authority with a responsibility for enforcing the Health and Safety at Work Etc. Act 1974 and other relevant statutory provisions; normally HSE or the local authority for the area as determined by the Health and Safety (Enforcing Authority) Regulations 1977.
Existing installations	Gas appliances or other fittings, which are not new installations and have already been used.
Factory	The legal definition of 'factory' is wide ranging and in addition to manufacturing and/or processing premises includes printing, fruit and vegetable packing, scrap yards, repair workshops (e.g. TV, vehicle), dairies, prison workshops, hospital and other institutional laundries, certain warehouses using mechanical power, power stations etc.
Flame supervision device (FSD)	A device that, in response to a signal from the flame detector, keeps the gas supply open and shuts it off in the absence of the supervised flame.
Free area	The total area of the individual unobstructed openings of an air vent.
Flue	Passage for conveying combustion products to the outside air.
Fumes	Products of complete or incomplete combustion.
Gas appliance	Means an appliance designed for use by a consumer of gas for heating, lighting, cooking or other purposes for which gas can be used but it does not include a portable or mobile appliance supplied with gas from a cylinder except for a portable or mobile space heater supplied with gas from a cylinder and the cylinder, pipes and other fittings used for supplying gas to that heater.
Gas fitting	"Gas fittings" means gas pipework, valves (other than emergency controls), regulators and meters and fittings, apparatus and appliances designed for use by consumers of gas for heating, lighting, cooking or other purposes for which gas can be used (other than the purpose of an industrial process carried out on industrial premises), but it does not mean: (a) any part of a service pipe; (b) any part of a distribution main or other pipe upstream of the service pipe; (c) a gas storage vessel; or (d) a gas cylinder or cartridge designed to be disposed of when empty.
Gas installation	Gas pipework, valves (other than emergency controls), regulators and meters and fittings, apparatus and appliances designed for use by consumers of gas for heating, lighting, cooking or other purposes for which gas can be used (other than the purpose of an industrial process carried out on industrial premises) and gas storage vessels.
Gas related incident	Gas related incidents are categorised as follows: gas explosions, property fires and burnt gas incidents (carbon monoxide (CO) poisonings), which result in death or major injury (reportable under RIDDOR Regulation 6(1)).
Gas Transporter (GT)	A person conveying gas in a network as defined in GSMR.
Gas User	• In a domestic environment, this will include: the owner of the property or tenant. • In a non-domestic environment, this will include: Site Engineer; Site Manager; Facilities Manager (see also **Responsible person**).
Ginnell	Covered passageway.
GIUSP	Gas Industry Unsafe Situations Procedure.
GSIUR	The Gas Safety (Installation and Use) Regulations 1998.
GSMR	The Gas Safety (Management) Regulations 1996.

Appendix 3 – Glossary of Terms and Definitions (Continued)	
Terms	**Definitions**
HSE	Health and Safety Executive.
'Immediately Dangerous' ('ID')	An appliance and/or installation, which if operated or left connected to a gas supply is an immediate danger to life or property.
Industry Standards or Codes of Practice	Documents published by bodies to provide guidance on how to carry out gas work activities e.g. British and European Standards, Institution of Gas Engineers and Managers (IGEM) Standards and UKLPG Codes of Practice.
Installation pipework	Any pipework for conveying gas for a particular consumer and any associated valve or other gas fitting, including any pipework used to connect a gas appliance to other installation pipework and any shut-off device at the inlet to the appliance, but it does not mean: a) a service pipe; b) a pipe comprised in a gas appliance; c) any valve attached to a storage container or cylinder; or d) service pipework.
Intermediate pressure stage (LPG)	That part of the LPG installation between the outlet of the 1st stage regulator and the inlet of the 2nd stage regulator. For Propane, the pressure will be in the region of 750mbar. Also known as medium pressure stage.
Leisure Accommodation Vehicle (LAV)	A unit of living accommodation for temporary or seasonal occupation that may meet the requirement for the construction and use of road vehicles, e.g. a caravan.
Low pressure stage (LPG)	That part of the LPG installation between the outlet of the 2nd stage regulator and the gas appliance(s). For Propane, the nominal operating pressure is 37mbar. For Butane, the nominal operating pressure is 28mbar.
Low pressure (Natural gas)	Gas inlet pressure to the meter regulator not exceeding 75mbar.
LPG	Liquefied Petroleum Gas (LPG) is the generic name for commercial Propane and commercial Butane, stored in vessels under pressure, which turns into a liquid state.
High pressure stage (LPG)	That part of the LPG installation between the take-off valve of the bulk storage vessel or cylinder and the inlet of the 1st stage regulator. For Propane, the pressure will be in the region of 6.9bar. For Butane, the pressure will be in the region of 1.93bar. These pressures may vary dependant upon ambient temperatures.
Manufacturer's instructions	Documents supplied with the appliance and/or equipment by the manufacturer giving guidance on how to use, service, maintain and install the product.
Medium pressure (Natural gas)	Gas inlet pressure to the meter regulator exceeding 75mbar, but not exceeding 2bar.
Meter box	A receptacle or compartment designed and constructed to contain a gas meter with its associated fittings.
Meter inlet valve (MIV)	A valve fitted upstream of and adjacent to a gas meter to shut off the supply of gas.
Meter regulator	A device located in close proximity and upstream of a primary meter which is used solely to control the pressure of the gas within the gas installation.
Must	Identifies a requirement by law in Great Britain at the time of publication.
NG	Natural gas
Non-domestic installations	These include installations in commercial premises such as hospitals, libraries, prisons, churches, hotels and the communal areas of housing premises such as walkways, stairs, lift-shafts and boiler rooms, where the gas installation pipework is normally greater in size than 35mm (R1¼) diameter and where the appliances installed are designed for non-domestic purposes.
'Not to Current Standards' ('NCS')	An installation which is not in accordance with current Regulations, Standards and Specifications or Codes of Practice, but does **NOT** constitute either an 'Immediately Dangerous' ('ID') or 'At Risk' ('AR') situation.

Appendix 3 – Glossary of Terms and Definitions (Continued)	
Terms	**Definitions**
New Installations	Gas appliances or other fittings installed or brought into use for the first time and the new installation of previously used or second-hand appliances.
Operating satisfactorily	Means operating safely at the time of attending the premises.
OPSO	Over-pressure shut-off device.
PE	Polyethylene.
Residential Park Home	A mobile home designed for permanent residential accommodation that does not meet the requirement for construction and use of road vehicles.
Responsible person	In relation to any premises, means the occupier of the premises or where there is no occupier or the occupier is away, the owner of the premises, or any person with authority for the time being to take appropriate action in relation to any gas fitting therein (see also **Gas User**).
RIDDOR	The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995.
Service pipe (Natural gas)	Means a pipe for distributing gas to premises from a distribution main, being any pipe between the distribution main and the outlet of the first emergency control downstream from the distributing main.
Service pipework (LPG)	A pipe for supplying gas to premises from a gas storage vessel, being any pipe between the gas storage vessel and the outlet of the ECV.
Shall	Prescribes a procedure that it is intended will be complied with in full and without deviation.
Should	Prescribes a procedure that it is intended will be complied with unless after prior consideration deviation is considered to be acceptable.
Spillage monitoring device (TTB)	(Dutch Acronym 'Themische Terugslag Beveiliging'). A temperature activated switching device, which links to a thermocouple interrupter device and shuts off the gas supply to an appliance burner before there is a build-up of a dangerous quantity of combustion products in the room concerned.
Turn off	To isolate the appliance using controls accessible to the gas user e.g. turn off using a multifunctional valve to extinguish a pilot; turn appliance control to off position.
Upstream	That part of a gas installation prior to, or before a certain point e.g. the gas meter is upstream of the appliance.
UPSO	Under-pressure shut-off device.
'Work'	In relation to a gas fitting, this includes any of the following activities carried out by any person, whether an employee or not: a) Installing or reconnecting the fitting; b) Maintaining, servicing, disconnecting, permanently adjusting, repairing, altering or renewing the fitting or purging it of air or gas; c) Where the fitting is not readily movable, changing its position; and d) Removing the fitting. **Note:** *Work in this context does not include the connection or disconnection of a bayonet fitting or other self-sealing connector*.

Appendix 4 – Normative References

Note: *This should not be regarded as an exhaustive list of normative references.*

Statutory Instruments

- The Gas Safety (Installation and Use) Regulations (SI 1998 No. 2451)
- The Gas Safety (Management) Regulations (SI 1996 No. 551)
- The Gas Safety (Rights of Entry) Regulations (SI 1996 No. 2535)
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (SI 1995 No. 3163)
- The Health and Safety at Work Etc. Act 1974, chapter 37 as amended
- Dangerous Substances and Explosive Atmospheres Regulations (SI 2002 No. 2776)
- Building Regulations (England and Wales) 2000 (SI 2000 No. 2531)
- Building Standards (Scotland) 1990 (SI 1990 No. 2179)
- Building Regulations (Isle of Man) 2003 (SD 829/03)
- Building Regulations and Building Standards Approved Documents as appropriate to each geographical region

Approved Codes of Practice and Guidance

- Safety in the installation and use of gas systems and appliances – Gas Safety (Installation and Use) Regulations 1998 – Approved Code of Practice and Guidance. (L56) ISBN. 0-7176-1635-5

Industry Normative Documents

British and European and Standards

- **BS 5440:** Installation and maintenance of flues and ventilation for gas appliances of rated input not exceeding 70kW net (1st, 2nd & 3rd family gases): Parts 1 & 2.
- **BS 5482:** Code of Practice for domestic butane and propane – gas burning installations: Parts 1 & 2.
- **PD 5482-3**: Code of Practice for domestic butane and propane – Installations in boats, yachts and other vessels.
- **BS 5871:** Specification for installation of gas fires, convector heaters, combined fire/back boilers and decorative fuel-effect gas appliances (1st, 2nd & 3rd family gases) Parts 1, 2, 3 & 4.
- **BS 6172:** Specification for installation of domestic gas cooking appliances (1st, 2nd & 3rd family gases).
- **BS 6173:** Specification for installation of gas-fired catering appliances for use in all types of catering establishments (1st, 2nd & 3rd family gases).

Appendix 4 – Normative References (continued)

- **BS 6230:** Specification for installation of gas-fired forced convection air heaters for commercial and industrial space heating (2nd family gases).
- **BS 6400:** Specification for installation of domestic sized gas meters (2nd & 3rd family gases): Parts 1, 2 & 3.
- **BS 6644:** Specification for installation of gas-fired hot water boilers of rated heat inputs between 60kW and 2MW (2nd & 3rd family gases).
- **BS 6891:** Specification for installation of low pressure gas pipework of up to 35mm (R1¼) in domestic premises (2nd family gases).
- **BS 6896:** Specification for installation of gas-fired overhead radiant heaters for industrial and commercial heating (2nd & 3rd family gases).
- **BS 7624:** Installation and maintenance of domestic direct gas-fired tumble dryers of up to 6kW heat input (2nd & 3rd family gases) - Specification.
- **BS 7967:** Carbon monoxide in dwellings and the combustion performance of gas appliances: Parts 1, 2, 3 & 4.
- **BS 8446:** Specification for the installation and maintenance of open-flued non-domestic gas-fired laundry appliances.
- **BS EN 721:** Leisure accommodation vehicles safety ventilation requirements.
- **BS EN 1949:** Specification for the installation of LPG systems for habitation purposes in leisure accommodation vehicles and in other road vehicles.
- **BS EN ISO 10239:** Small craft LPG systems.
- **BS EN 13410:** Gas-fired overhead radiant heaters. Ventilation requirements for non-domestic premises.

The Institution of Gas Engineers and Managers Standards

- **IGE/GM/6** – Specification for low-pressure diaphragm and rotary displacement meter installations with badged meter capacities exceeding 6m^3/h (212ft^3/h) but not exceeding 1076m^3/h) (38000ft^3/h).
- **IGE/GM/8** – Non-domestic meter installations. Flow rate not exceeding 6m^3/h and inlet pressure not exceeding 38bar – Parts 1 - 5.
- **IGE/UP/1 Edition 2:** Strength testing, tightness testing and direct purging in industrial and commercial gas installations.
- **IGE/UP/1A Edition 2:** Strength testing, tightness testing and direct purging of small, low pressure industrial and commercial natural gas installations.
- **IGE/UP/1B Edition 2:** Tightness testing and purging of domestic sized natural gas installations.
- **IGEM/UP/2 Edition 2:** Installation pipework on industrial and commercial premises.
- **IGE/UP/7 Edition 2:** Gas installations in timber framed and light steel framed buildings.

Appendix 4 – Normative References (continued)

- **IGE/UP/10 Edition 3:** Installation of gas appliances in industrial and commercial premises:
- **IGE/UP/11:** Gas in educational establishments.
- **IGE/G/5:** Gas in flats and other multi-dwelling buildings.
- **IGEM/G/6:** Gas supplies to mobile dwellings.
- **IGEM/GL/8:** Reporting and investigation of gas related incidents.
- **IGEM/SR/10:** Dealing with escapes of gas into underground plant.
- **IGEM/SR/20:** Dealing with reported gas escapes.
- **BG IM/28** – Appliances in commercial garages.

UKLPG Codes of Practice

- **CoP 1 Part 1:** Bulk LPG storage at fixed installations: Design, installation and operation of vessels located above ground.
- **CoP 1 Part 2:** Bulk LPG storage at fixed installations: Small bulk installations for domestic purposes.
- **CoP 1 Part 4:** Bulk LPG storage at fixed Installations: Buried/Mounded LPG storage vessels.
- **CoP 22:** LPG Piping system design and installation.
- **CoP 24 Part 3:** Use of LPG cylinders: The use of LPG in mobile catering vehicles and similar commercial vehicles.
- **CoP 24 Part 4:** Use of LPG cylinders: The use of LPG for catering and outdoor functions.

Other references

- **HSE Catering Information Sheet Number 3** – Precautions at manually ignited gas-fired catering equipment.
- **HSE Catering Information Sheet Number 10 (rev1)** – Ventilation of kitchens in catering establishments.
- **HSE Catering Information Sheet Number 23 (rev1)** – Gas safety in catering and hospitality.

Gas Safe Register Technical Bulletins and Safety Alerts

- **Technical Bulletins and Safety Alerts** – these can be viewed on line by visiting: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.

Useful Industry Contact telephone numbers and websites

Organisation	Tel. number	Website
Gas Safe Register (Technical Helpline) (To view Technical Bulletins and Safety Alerts online, visit the Website)	0800 408 5577	https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.
SBGI	01926 334357	www.sbgi.org.uk
Health and Safety Executive (HSE)	0845 345 0055	www.hse.gov.uk
Health and Safety Executive (HSE) Books	01787 881 165	www.hsebooks.com
Incident Contact Centre (RIDDOR reports)	0845 300 9923	www.riddor.gov.uk
Office of Gas and Electricity Markets (Ofgem)	0845 906 0708	www.ofgem.gov.uk
British Standards Institution (BSI)	020 8996 9001	www.bsi-global.com
Gas Industry Safety Group (GISG)	01234 214 273	www.gisg.org.uk
The Institution of Gas Engineers and Managers (IGEM)	01509 282728	www.igem.org.uk
UKLPG	02476 711601	www.uklpg.org
National Caravan Council (NCC)	01252 318251	www.nationalcaravan.co.uk
Council for Gas Detection and Environmental Monitoring (CoGDEM)	01462 434322	www.cogdem.org.uk

Appendix 5 – Explaining the Problem to the Responsible Person

The scripts below may be useful to help when called upon to explain a particular situation to the gas user or responsible person.

For 'IMMEDIATELY DANGEROUS' ('ID') situations

"I must advise you that your gas appliance is considered to be **'Immediately Dangerous'** and if it is used, it will create a danger to life or property.

It must not be used. It has been turned off and should be disconnected in the interests of safety.

If you refuse permission to disconnect, it will be reported to the gas emergency services who are able to demand entry to make safe.

It must not be used until work has been carried out to correct the deficiencies identified.

It is an offence to use gas burning equipment knowing it is dangerous".

For 'AT RISK' ('AR') situations

"I must advise you that your gas appliance is considered to be **'At Risk'** and if it is used, it may create a risk to life or property.

It should not be used. It has been turned off and should not be used until work has been carried out to correct the deficiencies identified.

It may be an offence to use a gas appliance knowing it is at risk."

For 'NOT TO CURRENT STANDARDS' ('NCS') situations

"I must advise you that your gas appliance is not installed in accordance with the current installation practice.

It is currently operating safely, but you may wish to take advice on whether the installation should be brought into line with current installation standards.

If the installation has been carried out recently, you should contact the original installer for advice.

If the installation is not recent, the situation may have been brought about by the introduction of revised installation standards.

Your Gas Safe registered engineer can advise you on whether the installation should be brought into line with current installation standards."

Note: *It is always best practice to bring an installation up to current standards, but that will often depend upon whether the work can be undertaken at reasonable cost, or whether any other work is likely to be carried out on the installation in the near future, such as a replacement appliance.*

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Appendix 6 – Examples of Typical Warning Labelling Used with GIUSP

Figure 6 - Typical 'Immediately Dangerous' Warning Label (approximately - 150mm (H) x 160mm (W))

Figure 7 - Typical 'At Risk' Warning Label (approximately - 90mm (H) x 140mm (W))

Appendix 6 – Examples of Typical Warning Labelling Used with GIUSP

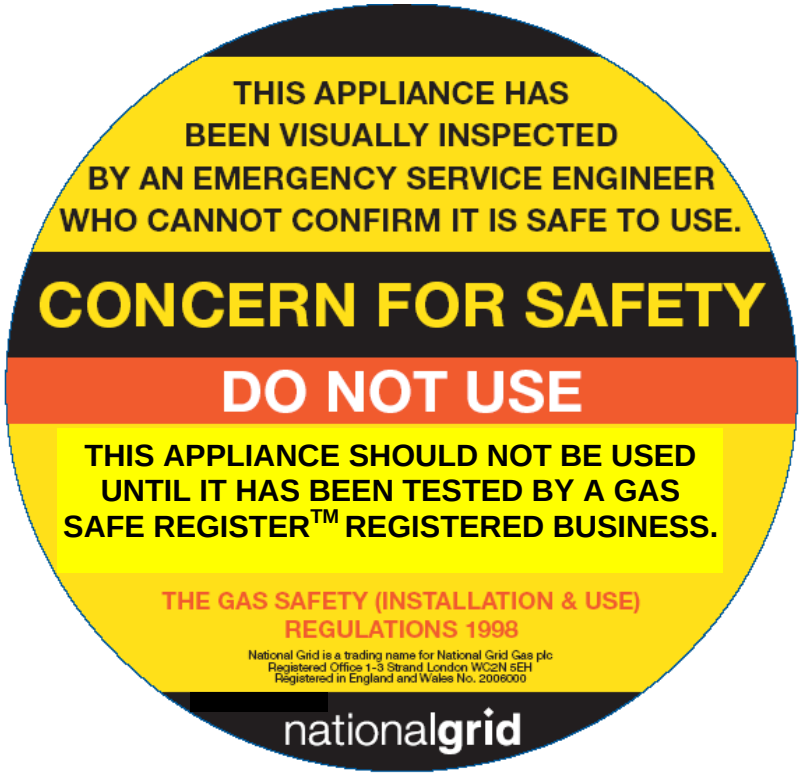

Figure 8 - Typical ESP 'Concern for Safety' label

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Appendix 7 – Visual Risk Assessment of Gas Appliances

Introduction

When gas operatives carry out a visual risk assessment of a gas appliance(s) they have a minimum responsibility to ensure that the appliance(s) does not constitute a danger.

The trigger points outlined below must only be used in situations where no gas work has been undertaken but the appliance(s) has been encountered either directly whilst other gas work has been carried out, or as part of a "check and relight" procedure following the interruption of the gas supply (e.g. following a gas tightness test) and there is a need to re-establish the gas supply.

Note: *Where gas work has been carried out on a particular appliance(s) the checks required by Regulation 26(9) of GSIUR must also be completed.*

Visual Risk Assessment (No interruption of the gas supply has occurred)

Figure 9 shows the 5 main trigger points that will need to be considered when carrying out a visual risk assessment of an existing gas appliance(s), where no other gas work on that particular appliance(s) has been undertaken, (e.g. whilst servicing a central heating boiler, a gas cooker is installed in the same room. A visual assessment of the gas cooker should be undertaken).

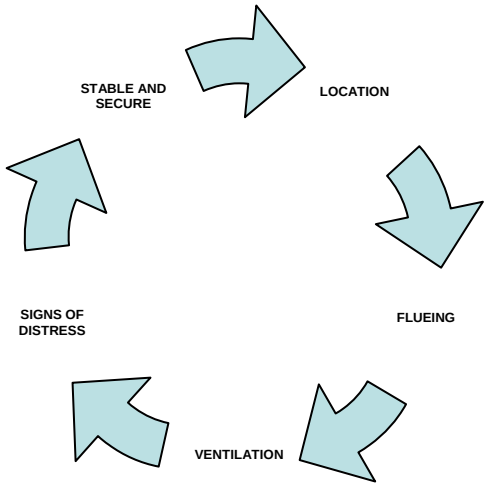

Figure 9 - Visual risk assessment (no interruption of the gas supply)

The trigger points outlined in Figure 9 above may be carried out in any order as necessary where applicable.

Location

Question – Is the gas appliance installed in a suitable room and/or space with regard to the requirements of GSIUR, for example, an open-flued appliance installed in a bathroom or shower room, or a flueless appliance installed in an undersized room?

Flueing

Question – If the gas appliance is flued (either open-flued or room-sealed), is there provision for adequate methods for the removal of the products of combustion to atmosphere?

Ventilation

Question – Where appropriate, is there provision for the supply of adequate ventilation for the appliance to operate safely (e.g. is there evidence of purpose-provided ventilation for an open-flued boiler)?

Signs of Distress

Question – Are there any signs of distress on the gas appliance and/or the surrounding area (e.g. check for signs of discolouration and heat damage such as scorching or finished surfaces becoming detached from worktops, etc)?

Stable and Secure

Question – Is the appliance installation both stable and secure?

It should be assessed to ensure that under normal conditions, the appliance will remain fixed and/or installed in a manner that will not result in the appliance becoming unstable (e.g. free-standing appliances with damaged or missing supports).

Visual Risk Assessment (Following temporary interruption of gas supply)

Figure 10 shows the 6 main trigger points that will need to be considered when carrying out a visual risk assessment of an existing gas appliance(s) where the gas supply has been temporarily interrupted, for example, if there has been a replacement gas meter installed.

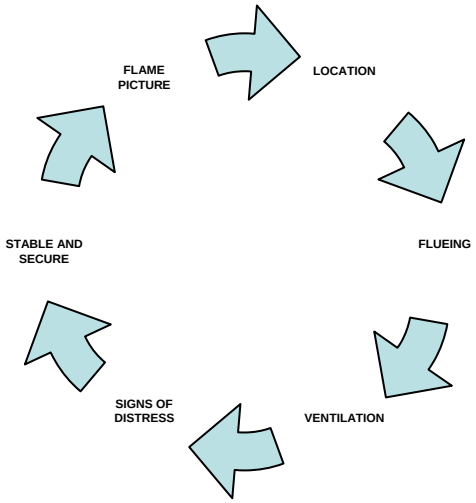

Figure 10 - Visual risk assessment (temporary interruption of the gas supply)

The 5 trigger points outlined in Figure 9 also apply to Figure 10 with the addition of an assessment of an appropriate flame picture for the appliance type (e.g. live fuel effect gas fires and decorative fuel effect gas appliances are designed to produce a luminous flame).

Results of the Visual Risk Assessment

There is no specific requirement to record the results of a visual risk assessment but operatives are advised to positively record that a visual risk assessment has been undertaken. However, where, as a result of the assessment an unsafe situation has been identified or is suspected, the current GIUSP must be implemented and the appropriate actions taken and relevant warning notices and labels completed and issued.

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Appendix 8

Published amendments (No. 2) to the Gas Industry Unsafe Situations Procedure - Edition 6 - February 2011

These amendments to the GIUSP were published 1 February 2011 and come into effect 1 April 2011. However, this should not restrict Gas Safe registered businesses from applying the specification sooner.

These amendments which should not be read in isolation apply to Table 1 of GIUSP and should be read in conjunction with the appropriate areas of Table 1 in the published GIUSP.

The following indicator "**see AMD2 02.11**" has been placed against the particular situations in Table 1 of GIUSP for which the amendments apply.

1 April 2011

Introduction

In February 2011, the Gas Industry Unsafe Situations Procedure Working Group (GIUSP WG) published further amendments to the GIUSP Edition 6, concerning the Tables section of the document to provide further clarification to existing 'Situations' and new guidance with regard to the use of 'plume kits' to vent existing fan-assisted room-sealed flues which have become enclosed by the addition of a conservatory.

The new requirements take effect from: **1 April 2011**.

To allow registered businesses time to carry out internal up-date training to reflect the technical requirements of the amended GIUSP Edition 6, Gas Safe Register will inspect to the new requirements of this Industry Standard Update for any work completed from **1 April 2011**. However, this should not restrict businesses from applying the specification sooner.

The following is a brief overview of the published amendments.

1. **Table 1 - Section 3 – Meter box and/or compartment - Row 3.2**
   Revised guidance has been published in Technical Bulletin (TB) 003[(2)] where an unprotected polyethylene (PE) gas service is built-over/located within a building. Following a review by the GIUSP WG and further consultation with the Distribution Network Operators, it is necessary to clarify the situation and update the guidance provided in GIUSP - see **Appendix 8** for details.

2. **Table 1 - Section 4 - Reports of 'fumes' - Row 4.2** – Inserted as a new Row 4.2 - see item 3 (below) for reasoning and **Appendix 8** for details.

3. **Table 1 - Section 8 - Flues (Room-sealed) - Row 8.4** – This 'Situation' concerns flue terminations located in positions which could allow combustion products to enter properties e.g. in close proximity to windows, doors and air vents. Following Industry comment, the GIUSP WG has determined that this 'Situation' should be re-located under **Section 4 - Reports of 'fumes'** as a new 'Situation' (Row 4.2). This is because the 'Situation' is more appropriate in relation to a report of fumes - see **Appendix 8** for details.

4. **Table 1 - Section 8 - Flues (Room-sealed) - Row 8.4** – A new clause has been added regarding the use of plume kits to relocate flues terminating in conservatories - see **Appendix 8** for details.

5. **Table 1 - Section 9 – Flues in voids - Rows 9.1 – 9.5**
   Revised guidance has been published (TB 008 (Edition 2)[(3)]) concerning the access requirements needed to allow room-sealed fanned-draught chimney systems concealed within voids to be visually inspected and the process to be followed where access is not provided for inspection purposes. Further clarification has been provided which has resulted in the publication of revised guidance concerning the classification of identified defects in GIUSP - see **Appendix 8** for details.

6. **Table 1 - Section 10 - Appliances (General) - Row 10.13** – This 'Situation' concerns the safety of certain appliances installed onto a 'sealed' heating system. Following Industry comment received, the guidance has been revised and applies an 'At Risk' ('AR') classification to appliances installed onto a sealed heating system without pressure relief and/or overheat temperature protection. As a result of this change, the 'Not to Current Standards' ('NCS') category and the Note in this 'Situation' are no longer required and have been removed - see **Appendix 8** for details.

Bibliography

(1) *TB 001 – Gas Industry Unsafe Situations Procedure (published 1 October 2009)*

(2) *TB 003 – Built-over polyethylene (PE) Low and Medium pressure natural gas services – Safety concern*

(3) *TB 008 (Edition 2) - Room-sealed fanned-draught chimney/flue systems concealed within voids*

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Appendix 8 The following Amendments (1 April 2011) apply to all copies of GIUSP Edition 6 originally published 1 October 2009.

	SITUATION	CAT	RIDDOR	REG	NOTES
3. METER BOX AND/OR COMPARTMENT					
Delete the existing Row 3.2 and replace with the following new Row 3.2					
3.2	• Medium pressure fed (or higher) meter installation and/or unprotected PE gas service pipe (e.g. not routed within a metallic sheath), located within a domestic premise • Unprotected low pressure PE gas service pipe (e.g. not routed within a metallic sheath), located within a domestic premise	AR NCS	No No		In both cases, inform the relevant Gas Transporter, who will send a competent person to site to undertake further investigation. ***Note:*** *There may be instances where this situation is acceptable in non-domestic premises.* For further guidance see TB 003 at: https://engineers.gassaferegister.co.uk - login and visit the Technical Information area.
4. REPORTS OF 'FUMES'					
Insert a new Row 4.2					
4.2	Flue terminations located in positions which could allow combustion products to enter properties e.g. in close proximity to windows, doors and air vents. Following an assessment, the concentration of combustion products entering the premises is outside the acceptable limits of BS 7967 e.g. CO greater than 10ppm and rising	ID	Yes*	GSIUR	Where fumes are reported, see entry under **4.1 Reports of "Fumes"** The gas user/responsible person should be advised that if they smell fumes, then they should immediately turn the appliance(s) off, ventilate the room and contact the ESP. Concentrated levels of combustion products in this context are those that can be measured using an ECGA by means of an **ambient air assessment**, carried out in accordance with the procedure published in BS 7967-2 which indicates CO readings greater than 10ppm and rising. However, the limitations of such testing need to be recognised, e.g. prevailing weather conditions, etc. on the day of testing compared to the day when report was made. Therefore, the gas user/responsible person should be advised that if the problem persists then they should immediately turn the appliance off, ventilate the room and contact the ESP. Consideration should also be given to the installation of a suitable audible CO alarm(s). ***Note:*** *Additional sources of CO should always be considered.*

* Where due to the use of unsatisfactory fittings or workmanship.

SITUATION		CAT	RIDDOR	REG	NOTES
8. FLUES (ROOM-SEALED)					
Delete the existing Row 8.4 and replace with the following new Row 8.4					
8.4	The use of 'plume kits' to vent fan-assisted room-sealed flues which have: 1. Become enclosed by the addition of a building extension/conservatory, or 2. Been installed within an existing conservatory	AR	No		Plume kits are designed to manage nuisance caused by pluming from fan-assisted room-sealed flues. Before installation of a plume kit the termination must comply with the manufacturer's instructions. Both the air inlet and flue termination must be external to the building extension/conservatory and should be in the same pressure zone.
9. Flues in Voids (TB 008 (Edition 2))					
Delete the existing Rows 9.1 – 9.5 inclusive and replace with the following new Rows 9.1 – 9.9 inclusive					
9.1	Break in chimney system or signs of distress to the material of the enclosure/ceiling around the chimney system where further investigation is prevented	ID	Yes	GSIUR	In the circumstances where an 'ID' situation has been identified, a RIDDOR 6(2) report needs to be raised. Where the affected property is one of a number of similar properties in a block, or complex, the approximate number of properties in the development should be included in the summary of the report.
9.2	Signs of distress to the chimney system e.g. cracking or condensate leakage at joints	ID	Yes	GSIUR	Also refer to the Notes in item 1 above
9.3	Failure to achieve satisfactory combustion readings when using an electronic portable combustion gas analyser. Installations where: • The CO/CO_2 combustion ratio is above 0.008 (appliances incorporating air/gas ratio valves only TB 126) • The CO/CO_2 combustion ratio is between 0.004 and 0.008 (appliances incorporating air/gas ratio valves only TB 126)	ID AR	Yes No		Satisfactory combustion readings may include CO, CO_2 or CO/CO_2 combustion ratio. See specific appliance manufacturer's installation instructions, TB 126 or the appropriate parts of BS 7967. ***Note:*** *For guidance on appliances which do not incorporate air/gas ratio valve technology, see GIUSP Table 1 - Situation 10.6.* (TB 001)

SITUATION		CAT	RIDDOR	REG	NOTES
9. Flues in Voids (TB 008 (Edition 2)) (Continued)					
9.4	No access or inadequate access provided to allow satisfactory visual inspection of chimney system/route. This includes the property in question and other properties through which the chimney system passes through	see **Notes** opposite	No	GSIUR	See '**Chimney systems in voids - risk assessment process**' - in TB 008 (Edition 2) and the risk assessment Checklist and Figure A3.1 in Appendix 3 of TB 008 (Edition 2). Where the risk assessment has not identified any other obvious non-compliance with the chimney system and suitable CO alarms are fitted as detailed in Appendix 4 of TB 008 (Edition 2) the appliance may be left operational until **31 December 2012**. Registered engineers are advised they are able to continue to work on the appliance until the date outlined above. From **1 January 2013**, all installations without appropriate inspection access provided will be classified as 'AR' and should not be used until access for inspection is provided.
9.5	Incorrect grade of plastic chimney system material used where there are signs of distress e.g. discolouration, or it is not possible to visually inspect the entire chimney system	AR	No		Where the incorrect grade of plastic chimney system material is used but has adequate access to inspect and ensure that every joint is intact and the chimney system is appropriately supported then this can be classified as 'NCS' in accordance with current GIUSP (TB 001).
9.6	Incorrect jointing methods used e.g. use of lubricant on push-fit fittings, or screws missing from mechanical joints	AR	No		
9.7	Upon visual inspection, it is identified that the chimney system is insecure or inadequately supported	AR	No		Evidence that the chimney system is inadequately supported includes insufficient clipping and sagging of pipe.
9.8	The overall measured chimney system length exceeds the manufacturers' specification	AR	No		The appliance manufacturer should be contacted for their advice. Following this advice and after confirming the safe operation of the appliance (including combustion gas analysis) it may be appropriate to classify the installation as NCS.
9.9	For condensing appliances, upon visual inspection, it is identified that the chimney system does not have the manufacturer's specified gradient of fall back to the appliance or other drain points, but the appliance is operating safely	NCS	No	GSIUR	

Appendix 8 (continued). The following Amendments (1 April 2011) apply to all copies of GIUSP Edition 6 originally published 1 October 2009.

SITUATION		CAT	RIDDOR	REG	NOTES
10. Appliances (General)					
Delete the existing Row 10.13 and replace with the following new Row 10.13					
10.13	Appliance installed onto a sealed heating system without pressure relief and/or overheat temperature protection	AR	No	GSIUR	

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