



**Guidance notes to the CER's recently enacted  
*Liquefied Petroleum Gas Works* Regulations S.I. 299 of 2011**

**These Guidance Notes should be read in conjunction with:  
Electricity Regulation Act 1999 (*Liquefied Petroleum Gas Works*)  
Regulations 2011**

**Who should read this document**

The aim of these Guidance Notes is to act as an aid to any person or organisation involved in the installation, removal, repair, service or replacement of LPG fittings in Ireland in interpreting which categories of *gas works* are included within the scope of the *Liquefied Petroleum Gas Works* regulations and can, therefore, be only carried out by a Registered Gas Installer.

**CER/11/110**

**27<sup>th</sup> June, 2011**

## Introduction

This document is a Guidance Document with respect to the *Liquefied Petroleum Gas Works* Regulations (S.I. 299 of 2011) recently enacted by the Commission for Energy Regulation (CER).

### Why Should I read this?

If you are involved in the installation, removal, repair, service or replacement of LPG fittings in Ireland, you will need to know what types of *gas works* are included in the *Liquefied Petroleum Gas Works* Regulations (S.I. 299 of 2011) enacted on 27<sup>th</sup> June 2011.

If you are involved in the installation, removal, repair, service or replacement of natural gas fittings in Ireland please refer to [Gas Works Regulations S.I. 225 of 2009](#) and the corresponding guidance notes [CER/09/083B](#) to determine which types of *gas works* are covered by those regulations.

From the 27<sup>th</sup> June 2011, *Liquefied Petroleum Gas Works* can only be carried out by a Registered Gas Installer (RGI). Therefore, it is a legal requirement for a person carrying out *Liquefied Petroleum Gas Works* to register with the Gas Safety Supervisory Body (GSSB)<sup>1</sup> and become an RGI.

It is illegal for any person other than an RGI to undertake *gas works* involving either *LPG or Natural Gas* subject to certain limited exceptions<sup>2</sup>. These individuals may be subject to criminal proceedings. It is the CER's responsibility to proceed with such prosecutions under the Electricity Regulation Act 1999<sup>3</sup> if it deems it appropriate.

The purpose of this Guidelines Document is to support, provide practical advice and give examples with respect to which categories of *gas works* are included within the scope of the *Liquefied Petroleum Gas Works* Regulations to any person or organisation involved in the installation, removal, repair, service or replacement of LPG fittings in Ireland.

This document has been presented as a guidelines document to assist persons in interpreting the Liquefied Petroleum Gas Works Regulations S.I. 299 of 2011. It does not form part of the Electricity Regulation Act 1999 (Liquefied Petroleum Gas Works) Regulations 2011. It is intended as a reference document to assist persons in understanding the regulations.

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<sup>1</sup> The CER appointed the Register of Gas Installers of Ireland (RGI) as the GSSB on 6<sup>th</sup> November 2008 for a 7 year period. The Register of Gas Installers of Ireland (RGI) is responsible for regulating gas installers with respect to safety [www.rgii.ie](http://www.rgii.ie)

<sup>2</sup> There are certain limited exemptions for system operators, gas emergency officers and gas safety officers carrying out their functions.

<sup>3</sup> See Section 9G (4) of the 1999 Act inserted by Section 13 of the Energy (Miscellaneous Provisions) Act, 2006.

## Background to the Liquefied Petroleum Gas Works Regulations

The CER was granted the statutory function to regulate the activities of gas installers with respect to safety in 2006<sup>4</sup>. As part of this statutory function, the CER appointed the GSSB to operate and manage a registration scheme for RGI's on its behalf. Critical to the implementation of the registration scheme was the designation of categories of *gas works* which may only be undertaken by individually registered RGI's who are competent, operating to the appropriate standard, using the appropriate materials, who shall certify their work as safe and will be subject to ongoing regulation and inspection by the GSSB. By designating the classes of gas works, the CER set the scope for the system of the regulation of gas installers with respect to safety.

The safety function of the CER was extended in June 2010<sup>5</sup> to include the regulation of LPG Installers with respect to safety. In designating classes of *gas works*, the CER has set the scope for the system of the regulation of those installers.

### What categories of work do the regulations deem as Gas Works?

For the purposes of section 9G(3) of the 1999 Act 'works which are *gas works*' means the installation, removal, repair, servicing, maintenance or replacement (or any combination of the foregoing) of a LPG fitting covered by I.S. 813<sup>6</sup> and or I.S. EN 1949<sup>7</sup> which is:

- (a) used or designed to be used by a Domestic Customer; or
- (b) which is designed to be used by a Domestic Customer but which is installed in a Commercial or an Industrial Premises;

An 'LPG fitting' means any non-portable appliance, apparatus or other thing including associated pipework and flueing.

S.I. 299 of 2011 and this guidance note deal specifically with LPG fittings covered by I.S. 813 and or I.S. EN 1949.

### What categories of work do the Regulations not deem Gas Works?

For the purposes of section 9G (3) of the Act 'works which are gas works' does not include:

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<sup>4</sup> The Commission's functions were granted further to the enactment of the Energy (Miscellaneous Provisions) Act 2006.

<sup>5</sup> By the Energy (Biofuel Obligation and Miscellaneous Provisions) Act 2010 which amended the Electricity Regulations Act 1999.

<sup>6</sup> Irish Standard I.S. 813, Domestic Gas Installations published under the authority of the National Standards Authority of Ireland which may be revised and amended from time to time.

<sup>7</sup> Irish Standard I.S. EN 1949, Specification for the Installation of LPG Systems for Habitation Purposes in Leisure Accommodation Vehicles and in Other Road Vehicles published under the authority of the National Standards Authority of Ireland which may be revised and amended from time to time.

- (a) the installation, removal, repair, servicing, maintenance or replacement of LPG Fittings designed to be used by commercial gas customers;
- (b) the installation, removal, repair, servicing, maintenance or replacement of LPG Fittings designed to be used by industrial gas customers;
- (c) the design of gas works;
- (d) work on the Point of Delivery;
- (e) work upstream of the Point of Delivery;
- (f) work on LPG Fittings for the supply of gas for automotive use;
- (g) work that is specifically designed to be effected by a person without the use of a tool;
- (h) the manufacture of LPG Fittings;
- (i) the connection or replacement of a flexible connector connecting a refillable LPG storage cylinder to installation pipework<sup>8</sup> (see Figure 1 and Figure 2);
- (j) work on a single LPG installation (excluding repair or maintenance) without fixed pipework, achieved by a flexible connector from an adjacent LPG storage cylinder<sup>9</sup> (see Figure 3); or
- (k) the welding of pipework for Domestic Customers prior to the admission of gas.

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<sup>8</sup> This refers to the replacement of an empty cylinder with a full one, and or the replacement of a flexible hose or regulator from the cylinder to installation pipework, where the cylinder is located outside the premises. The cylinder may be replaced by the consumer or a dealer/distributor.

<sup>9</sup> This refers to the replacement of an empty cylinder with a full one, and or the replacement of a flexible hose or regulator, where the cylinder is located inside the premises, immediately adjacent to the appliance. In this case, the cylinder is usually replaced by the consumer.

**Figures 1 and 2: Cylinder located outside the premises.**

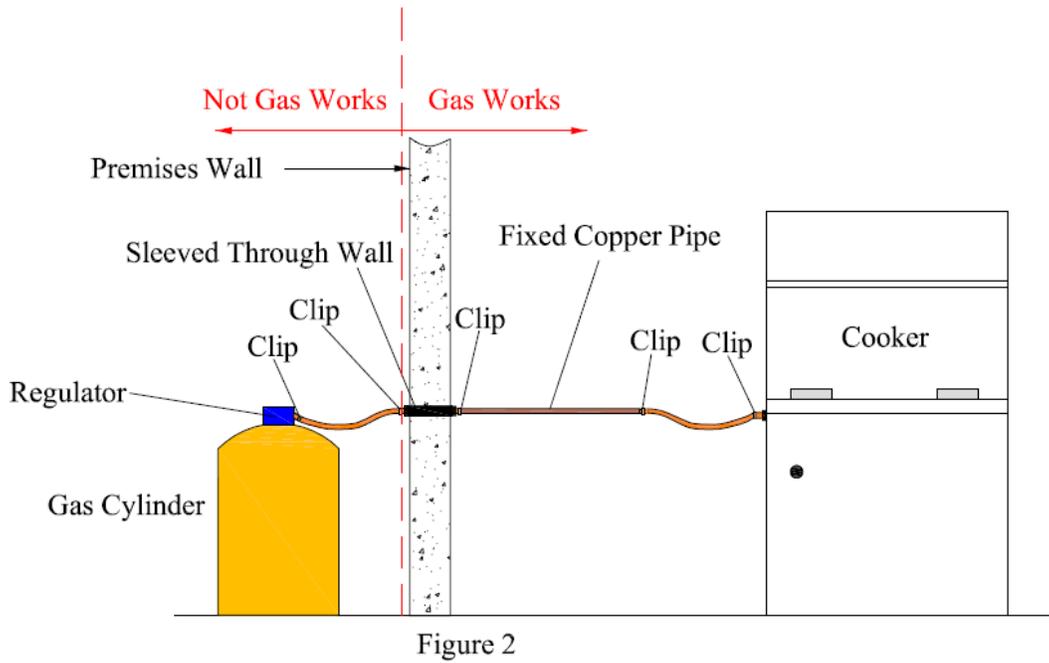
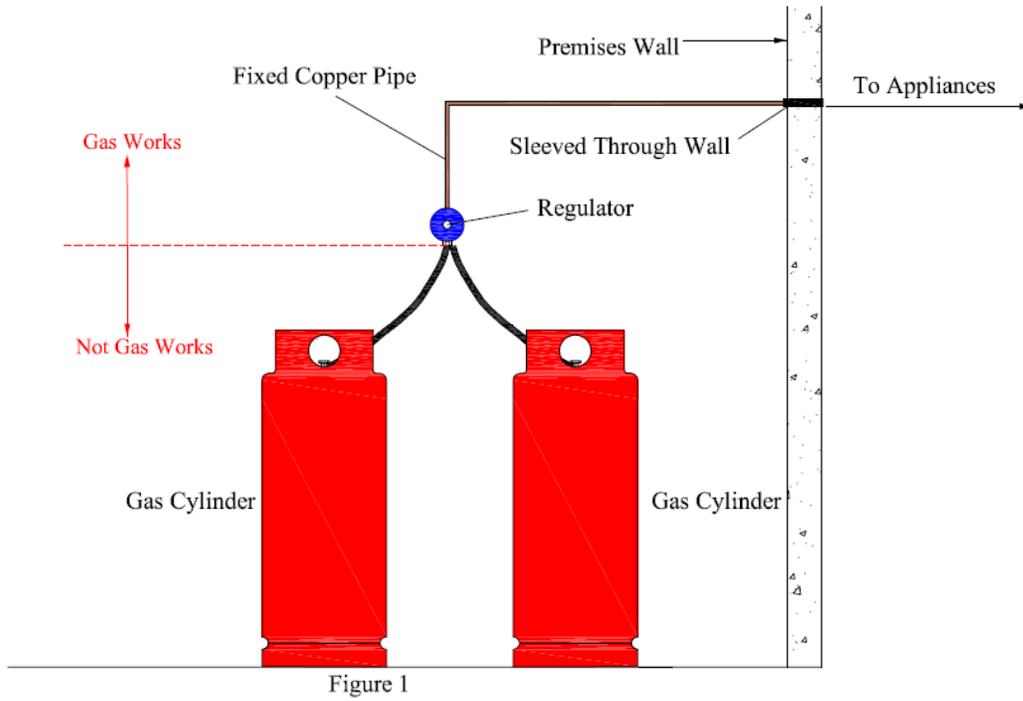


Figure 3: Cylinder located inside the premises.

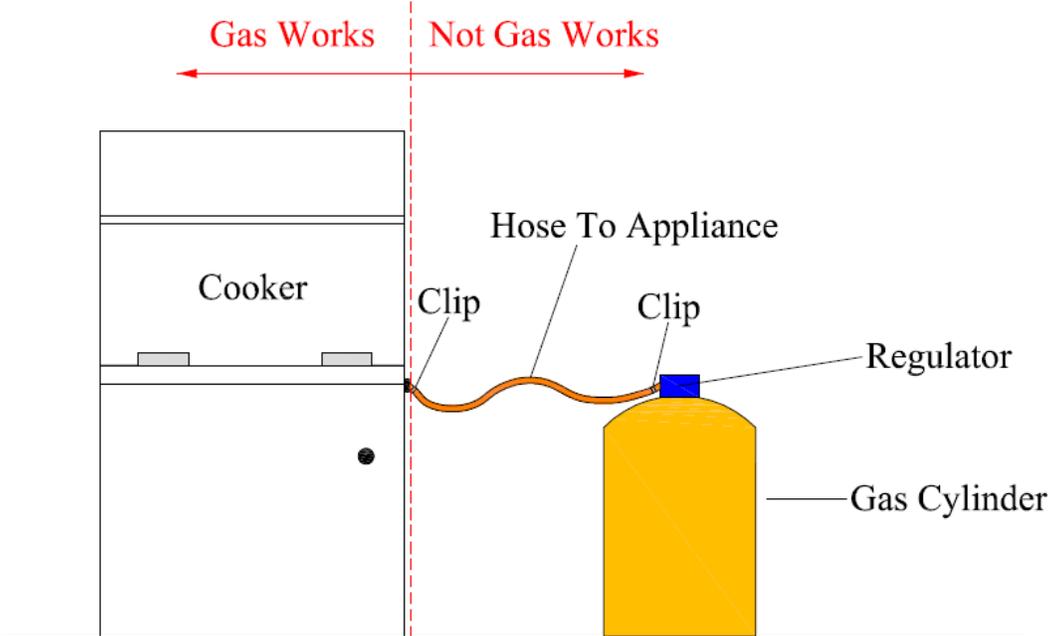


Figure 3

## **Guidance for persons requiring assistance in interpreting the above Regulations:**

The remainder of this document will provide assistance in describing and providing examples of *Liquefied Petroleum Gas Works* in respect of;

1. Installation work;
2. Removal work;
3. Repair or replacement work; and
4. Servicing and maintenance work.

People carrying out *gas works* will use the regulations to identify *Liquefied Petroleum Gas Works* which can only be undertaken by an RGI. In instances where work on domestic type appliances is carried out in a commercial or industrial premise, the RGI will need to consider if their competency and skills will enable them to undertake such work without adding any risk within a non domestic environment.

*Liquefied Petroleum Gas Works* carried out on and upstream of the Point of Delivery (i.e. the control valve) are not included within the scope of the regulations. This work is normally carried out by operatives for or on behalf of the LPG Undertaking.

All *Liquefied Petroleum Gas Works* must be carried out by an RGI and must be carried out in accordance with I.S. 813 and or I.S. EN 1949. This work includes installing new gas pipe work, extending existing gas pipe work installation, installing new or second hand appliances and moving the position of existing appliances or pipe work.

The RGI should ensure that LPG fittings, e.g. appliances and means of connection are fit for purpose for the environment. A domestic gas appliance is generally considered as one which has been designed for use in a domestic property, its design and manufacture is suitable for normal wear and tear that would be expected within a domestic household.

The European Directive on appliance safety called the “Gas Appliance Directive” (G.A.D.<sup>10</sup>) requires that appliances be so designed and built as to operate safely and present no danger to persons, domestic animals or property when normally used. The G.A.D defines “normally used” as when the appliance is used in accordance with its intended purpose or in a way which can be reasonably foreseen. The G.A.D requires all gas appliances to be CE marked.

### **Included within the scope of the Liquefied Petroleum Gas Works regulations are:**

- All non-portable LPG appliances within a domestic premises;
- All LPG boilers within a declared heat input of equal to or below 70kW in a commercial or industrial premises; and

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<sup>10</sup> Gas Appliance Directive 2009/142/EC of The European Parliament and of The Council of 30 November 2009 relating to appliances burning gaseous fuels (codified version).

- All other non-portable LPG domestic type appliances in commercial or industrial premises.

A 'Domestic Premises' is any building or part of a building used as a private place of residence on a permanent, temporary or seasonal bases. These regulations include all LPG fittings within the scope of I.S. 813 and I.S. EN 1949 used on a temporary, seasonal and permanent basis including those located in privately owned, rented and or hired mobile dwellings such as, Caravans<sup>11</sup>, Motor Caravans<sup>12</sup> and Caravan holiday homes<sup>13</sup> as defined by I.S. EN 1949.

Electrical work undertaken by an RGI as part of, or in association with any work on a domestic LPG appliance must comply with the current edition of the National Rules for Electrical Installations<sup>14</sup> as referred to in I.S. 813.

## 1.0 Installation work

### 1.1 Installation of domestic appliances and pipe work in domestic premises

All installation work on domestic appliances and pipe work in domestic premises must be carried out by an RGI and must be in accordance with I.S. 813 and or I.S. EN 1949. This work includes installing new gas pipe work, extending existing gas pipe work installations, installing new or second hand appliances and moving the position of existing appliances or pipe work. In regard to the installation of used (second-hand) appliances, the RGI shall ensure that the appliance has not been modified in such a way that it no longer complies with the G.A.D. Safety devices such as flame supervision devices must be checked and found to be working correctly. The RGI shall consult I.S. 813 and or I.S. EN 1949 and the manufacturer's technical instructions to ensure correct installation.

An RGI must issue an appropriate Declaration of Conformance Certificate<sup>15</sup> to the person who requested the *gas work* to be carried out.

The Declaration of Conformance Certificate system is essential to the effective operation and integrity of the new regulatory system. The Declaration of Conformance Certificate will act as the thread that links the work carried out by an RGI (for a customer) to the GSSB. The issuance of a Declaration of Conformance Certificate is mandatory for all *gas works* i.e. the installation, removal, repair, servicing, maintenance or replacement (or any combination of the foregoing) of a LPG Fitting covered by I.S. 813 and or I.S. EN 1949. For further detail on Certification, including the detail of the

<sup>11</sup> Caravan: trailer leisure accommodation vehicle that meets requirements for construction and use of road vehicles.

<sup>12</sup> Motor Caravan: self-propelled leisure accommodation vehicle that meets requirements for construction and use of road vehicles. It contains at least seats and table, sleeping accommodation which may be converted from the seats, cooking facilities and storage facilities.

<sup>13</sup> Caravan Holiday Home: transportable leisure accommodation vehicle that does not meet requirements for construction and use of road vehicles, that retains means for mobility and is for temporary or seasonal occupation.

<sup>14</sup> Electro Technical Council of Ireland (ETCI) National Rules for Electrical Installations, Fourth Edition ET101:2008

<sup>15</sup> Declaration of Conformance Certificate is a Completion Certificate for the purposes of the Electricity Regulation Act, 1999. Full details with respect to the Completion Certification system are available from the GSSB: [www.rgii.ie](http://www.rgii.ie)

various forms of Certificates, their format and the process by which they will be sold, completed and verified, please contact the GSSB.

The RGI is required to ensure that *gas works* which are in progress but not yet completed by them (unfinished works), are left in such a manner, so as to ensure they do not pose a danger to persons or property.

In regard to materials used in the installation generally, all materials must conform to the materials standards referenced in I.S. 813 and or I.S. EN 1949. Gas fittings shall be of a suitable construction, material, strength and size to convey gas to the appliance to ensure its safe operation. For example, ball valves are available from suppliers for gas or water applications, but not necessarily for both. Material selection will need to recognise the nature of the installed environment e.g. risk of physical damage, temperature, corrosion potential.

## **1.2 Installation of domestic appliances in commercial premises**

A Commercial Premises is any building or part of a building used for the purposes of carrying on a trade or business.

The RGI shall exercise judgement on whether an appliance intended for domestic use, can be operated safely and without danger in a non-domestic environment. For example, a cooker fitted in a kitchen/coffee room of a small shop or office may be subject to general wear and tear similar to a domestic situation and there will be no raised level of risk. However, where this is not the case, for example in a catering type business (chip shop), the RGI would need to consider the usage and the intended environment of the domestic appliance, and ensure that there is no adverse situation and the level of risk is not increased when used in that environment. Another example would be that of a Multipoint water heater designed for use in a domestic premise. In the kitchen/coffee room of a small shop or office, the use of the water heater may be similar to that experienced in a domestic household. On the other hand, its use in a catering area could mean extensive use for which the water heater is not designed. I.S. 813 requires a Declaration of Conformity<sup>16</sup> and assurance that all users have been instructed to the safe use of the gas fittings (appliance, apparatus, pipe work and fittings, flues, ventilation and the safe use of the LPG).

Specific guidance on the use of domestic type cookers in schools and other educational establishments is provided in I.S. 813, Annex J.

An RGI shall also consider the connection of gas fittings to existing commercial pipe work. An RGI may well judge that the connection of a new gas fitting to an existing capped off section isolating valve, which is in close proximity to the intended appliance location, will provide testing and commissioning that is within the bounds of domestic competency.

Gas fittings include the means for providing ventilation and flueing. Where any domestic appliance is installed in a commercial or industrial premise, an RGI shall ensure the

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<sup>16</sup> I.S. 813 Annex D

safety of the appliance and any existing appliances is not compromised. Examples may include:

- The installation of a domestic appliance in a location where other (commercial) appliances are served by mechanical forced air supply and or fume extraction.
- A situation where catering appliances are grouped under a canopy with forced fume extraction, as the installation of an additional appliance may affect the ability of the extraction method (fan or natural) of products and fume removal within the canopy. This type of installation often incorporates safety interlocking between airflow and gas flow and requires the RGI to be conversant with the requirements of I.S. 820<sup>17</sup>.

Such examples of work may be beyond the competency of the RGI and he/she must exercise his/her own sound judgement in this regard.

### ***1.3 Installation of domestic appliances in industrial properties***

The guidelines outlined in section 1.2 will also apply to any work undertaken when installing domestic appliances in industrial premises.

## **2.0 Removal work**

### ***2.1 Removal of Domestic Gas fittings and Domestic Appliances in Domestic Premises***

The 1999 Act<sup>18</sup> makes it clear that only an RGI is permitted to disconnect and or remove domestic appliances and gas fittings (*gas works*). Such work must be carried out in accordance with I.S. 813 and or I.S. EN 1949. An exception to this requirement is in circumstances where the disconnection of the domestic appliance does not require the use of a tool. For example, a cooker or an outside barbeque is usually fitted with a flexible connection and a regulator. These may be disconnected by the user for cleaning and storage respectively. Another exception is the connection or replacement of a flexible connector connecting a refillable cylinder to installation pipework.

During any operation necessitating the connection of pipework to a meter, a temporary electrical continuity bond shall be fixed to span the intended opening. This safety precaution shall be taken regardless of whether or not permanent cross bonding has been established.

Open ends of pipework and valve outlets shall be sealed with an appropriate fitting and requiring tools to re-open.

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<sup>17</sup> Irish Standard I.S. 820 Non-Domestic Gas Installations published under the authority of the National Standards Authority of Ireland which may be revised and amended from time to time..

<sup>18</sup> As amended by the Energy (Miscellaneous Provisions) Act 2006 and the Energy (Biofuel Obligation and Miscellaneous Provisions) Act 2010.

## ***2.2 Removal of domestic appliances in commercial premises.***

Generally, this work should only entail removal of the appliance with the connected supply sealed at the isolating valve. This work may be beyond the competency of the RGI and he/she must exercise his/her own sound judgement in this regard.

## ***2.3 Removal of domestic appliances in industrial premises.***

Generally, this work should only entail removal of the appliance with the connected supply sealed at the isolating valve. This work may be beyond the competency of the RGI and he/she must exercise his/her own sound judgement in this regard.

## **3.0 Repair or replacement work**

### ***3.1 Repair and replacement of domestic appliances and pipe work in domestic premises***

The RGI shall ensure that any repair/service or inspection of an appliance shall not degrade its safety and present danger. Where an RGI is involved in the repair of a gas appliance, the RGI should make the appliance safe by turning off the gas at the appliance isolation valve during the period before a replacement part is fitted. Where a section of a gas installation is repaired or replaced, an RGI shall consider the effects of any release of gas and the safe sealing of the installation until the repair is completed.

### ***3.2 Repair and replacement of domestic appliances in commercial premises***

The guidelines outlined in section 3.1 will also apply to domestic appliance installations in commercial properties.

### ***3.3 Repair and replacement of domestic appliances in industrial properties***

The guidelines outlined in section 3.1 will also apply to domestic appliance installations in industrial properties.

## **4.0 Service and maintenance**

### ***4.1 Service and maintenance of domestic appliances and pipe work in domestic premises***

Service and maintenance work includes all activities carried out on an appliance and the associated ventilation flue system, including connecting pipe work. Works involving plumbing and heating controls external to an appliance (such as a room thermostat or a circulating pump or the adjustment of user controls such as a programmer) are not considered gas works. The RGI should recognise that some types of central heating boilers have integral circulating pumps (as well as safety controls that require re-setting

following a fault condition) that are accessed only after removal of casing panels. Often these casings are functional i.e. they provide a seal, the integrity of which is crucial for the safe operation of the appliance, consequently any work requiring removal of such panels will be regarded as *gas works*.

#### **4.2 Service and maintenance of domestic appliances in commercial premises**

The guidelines outlined in section 4.1 will also apply to domestic appliance installations in commercial properties.

For requirements relating to the installation in schools and other educational establishments of domestic type appliances not intended for educational purposes, for example a domestic type gas cooker in a staff room, reference shall be made to I.S. 813. For requirements relating to the pipework up to and including the valve supplying such an appliance, reference shall be made to the appropriate clauses of I.S. 820. The domestic RGI shall recognise that domestic competency does not extend to the application of I.S. 820 and this work should only be carried out by a gas installer fully conversant with I.S. 820.

Where any domestic appliance is installed in a commercial premise, an RGI shall ensure the safety of the appliance and any existing appliances is not compromised. Examples may include:

- The installation of a domestic appliance in a location where other (commercial) appliances are served by mechanical forced air supply and or fume extraction.
- A situation where catering appliances are grouped under a canopy with forced fume extraction, as the installation of an additional appliance may affect the ability of the extraction method (fan or natural) of products and fume removal within the canopy. This type of installation often incorporates safety interlocking between airflow and gas flow and requires the RGI to be conversant with the requirements of I.S. 820.

Such examples of work may be beyond the competency of the RGI and he/she must exercise his/her own sound judgement in this regard.

The RGI should recognise that some types of central heating boilers have integral circulating pumps (as well as safety controls that require re-setting following a fault condition) that are accessed only after removal of casing panels. Often these casings are *functional* i.e. they provide a seal, the integrity of which is crucial for the safe operation of the appliance, consequently any work requiring removal of such panels will be regarded as *gas works*.

### ***4.3 Service and maintenance of domestic appliances in industrial premises***

The guidelines outlined in section 4.2 will also apply to domestic appliance installations in industrial premises.

**Not included within the Scope of the Liquefied Petroleum Gas Works Regulations are:**

- All portable LPG appliances within a domestic premise.