

Review of UK regulations governing health and safety for supply of bulk LPG for domestic use

Purpose of appendix

1. This appendix examines the degree to which the 'integrated approach' to LPG supply—whereby the LPG supplier also installs, maintains and owns the tank—is justified from the perspective of the health and safety regime currently in operation in the UK. Certain LPG suppliers have argued that the current regulatory regime does not cover every aspect of supply activity to domestic premises, and that there are lacunae in the statutory framework which would become more significant if the integrated approach did not apply.

2. The appendix summarizes the purpose and scope of the health and safety legislation which is of relevance to the supply of LPG for domestic use, and examines whether—on the basis of the regulatory regime—there is a safety rationale or justification for the following current market practices:
 - ownership of the tanks by the LPG supplier;
 - exclusivity of supply;
 - uplift of tank when the customer switches to a new supplier; and
 - the requirement for a three-month notice period.

3. The appendix focuses on the minimum legal requirements currently in effect in the UK. It does not review the approved codes of practice;¹ nor does it cover the LPG-specific codes of practice adhered to by LPG suppliers, since they are voluntary.

¹Such approved codes of practice (termed 'ACOPs') have been issued in relation to specific health and safety regulations (such as the GSIUR and PSSR). They have been approved by the Health and Safety Commission in accordance with section 16 of the 1974 Act. While these codes do provide some clarification of the scope of the regulations (and may be relied on in the context of criminal proceedings), they are not specific to the LPG industry and are of limited assistance in determining the applicability of the regulations to LPG.

However, it is recognized that the codes may be of some relevance in clarifying legal obligations.²

4. The appendix deals primarily with the legal regime in Great Britain. However, the equivalent regime in equivalent Northern Ireland appears to be broadly identical and references are made to the Northern Irish legislation where appropriate.

Outline of legal regime

5. Many of the statutory provisions affecting the supply of LPG are derived from legislation designed to protect the health and safety of employees and other persons who may be affected by the activities of a commercial undertaking. The *Health and Safety at Work etc Act 1974*³ (the 1974 Act) imposes in Great Britain a number of general obligations on employers⁴ to ensure, so far as is reasonably practicable, the health, safety and welfare at work of their employees, including a requirement to ensure the safe use, handling, storage and transport of substances.⁵ Employers (and self-employed persons) are also required to ensure that persons not in their employment who may be affected by the activity of their undertakings are not exposed to risks to their health and safety.⁶ In addition, employees have a duty to take reasonable care for the health and safety of themselves and other persons who may be affected by their acts or omissions at work.⁷ Equivalent provisions applicable

²For example, the LPG codes may be of relevance in determining whether LPG supply conforms with the general safety requirements of the General Product Safety Regulations 1994 (SI 1994 No 2328, regulation 10(2)(iii)(bb)). In addition, we understand that health and safety inspectors seeking to ensure compliance with the law may refer to LPG Code of Practice 1 as illustrating good practice.

³c 37.

⁴The term 'employer' is not defined in the 1974 Act. However, it may be construed by reference to the definition of 'employee', which is defined in section 53 as 'an individual who works under a contract of employment'. A similar definition is contained in section 2 of the Northern Ireland Order.

⁵Section 2 (and article 4 of the Northern Ireland Order). In addition, there is an obligation on manufacturers and suppliers of substances to ensure, so far as is reasonably practicable, that the substance will be safe and without risk to health at all times when it is being used, handled, processed, stored or transported by a person at work (section 6(4)(a) of the 1974 Act and article 7(4)(a) of the Northern Ireland Order).

⁶Section 3 (and article 5 of the Northern Ireland Order).

⁷Section 7 (and article 8 of the Northern Ireland Order).

in Northern Ireland are contained in the Health and Safety at Work (Northern Ireland) Order 1978 (the Northern Ireland Order).⁸

6. LPG suppliers, along with all other employers, are under an obligation to comply with the general duties laid down in the 1974 Act (and the Northern Ireland Order). They are required to ensure, so far as is reasonably practicable, the health, safety and welfare of any of their employees engaged in activities at work, which include installing and maintaining bulk LPG tanks and delivering LPG to domestic premises. Suppliers are also required to ensure, so far as is reasonably practicable, that domestic LPG customers are not exposed to risks to their health and safety as a result of such commercial activities. In the event of a breach of these obligations and subsequent prosecution, it is for the accused to prove that it was not reasonably practicable to do more than was done to comply with the duty.⁹

7. The 1974 Act and the Northern Ireland Order confer powers on the Secretary of State (or Northern Ireland equivalent) to make 'health and safety regulations' for, inter alia, securing the health, safety and welfare of persons at work.¹⁰ A number of these regulations affect the activities of LPG suppliers (in addition to the general obligations and duties arising from the 1974 Act). In particular:
 - (a) the *Management of Health and Safety at Work Regulations 1999*¹¹ (MHSWR) require employers to carry out risk assessments, in order to identify and implement preventative and protective measures necessary to comply with the 1974 Act and with other health and safety regulations such as the GSIUR, PSSR and DSEAR. For further details, see section 6 of the annex.

⁸1978 No. 1039 (NI 9).

⁹Section 40 of the 1974 Act and article 37 of the Northern Ireland Order.

¹⁰Section 15 (and article 17 of the Northern Ireland Order).

¹¹SI 1999 No 3242. Equivalent provisions applicable to Northern Ireland are contained in the Management of Health and Safety at Work Regulations (Northern Ireland) 2000 (Statutory Rule 2000 No 388).

- (b) the *Gas Safety (Installation and Use) Regulations 1998*¹² (GSIUR) regulate works carried out on bulk LPG tanks and related fittings (including pipework). They contain a number of safeguards to deal with emergency situations such as gas leaks, including a requirement for gas suppliers to do so within 12 hours of being informed. For further details, see section 1 of the annex;
- (c) the *Pressure Systems Safety Regulations 2000*¹³ (PSSR) apply to pressure systems such as bulk LPG tanks and associated pipework which are 'used or intended to be used at work'. They regulate certain matters related to tank installation and (for older tanks) design and construction, and require the 'user' of the pressure system to establish the safe operating limits of the tank, ensure that the tank is properly maintained and implement a written scheme of examination, including periodic inspections (though the provisions of the PSSR may not always ensure a complete history of the tank or pipework). For further details, see section 2 of the annex;
- (d) the *Dangerous Substances and Explosive Atmospheres Regulations 2002*¹⁴ (DSEAR) impose duties on employers to eliminate or reduce risk from substances which create a risk to safety by fire, explosion or other similar event. They require employers to carry out risk assessments and to provide suitable information to employees. For further details, see section 4 of the annex; and
- (e) the *Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004*¹⁵ (CDGR) regulate the carriage of goods by road and rail and the use of transportable pressure equipment. For further details, see section 5 of the annex.

¹²SI 1998 No 2451. Equivalent Northern Ireland provisions are contained in the Gas Safety (Installation and Use) Regulations (Northern Ireland) 2004 (Statutory Rule 2004 No. 63).

¹³SI 2000 No 128. Equivalent Northern Ireland provisions are contained in the Pressure Systems Safety Regulations (Northern Ireland) 2004 (Statutory Rule 2004 No. 222).

¹⁴SI 2002 No 2776. Equivalent provisions applicable to Northern Ireland are contained in the Dangerous Substances and Explosive Atmosphere's Regulations (Northern Ireland) 2003 (DSEAR (NI)), Statutory Rule 2003 No. 152.

¹⁵SI 1996 No 2095. We understand that equivalent Northern Ireland provisions are due to come into effect in autumn 2005.

8. Compliance with the specific regulations affecting LPG activities (and with the approved codes of practice and LPGA Codes) will very often be relevant in determining whether an LPG supplier has taken such action as is 'reasonably practicable' to protect his employees and others. However, such compliance will not necessarily guarantee that all the underlying obligations contained in the 1974 Act (or, as appropriate, the Northern Ireland Order) have been satisfied, and it will be for the LPG suppliers to take a view on how a particular activity may affect the health and safety of employees and other persons affected. [X] told us that, even if it complies with all provisions of the regulations, it may, following a suitable risk assessment, take the view that there is a risk to its employees by the supply of LPG in a particular situation and that the only measure that can be taken to ensure health and safety is to restrict supply.

9. Any breach of the general obligations under the 1974 Act (or the Northern Ireland Order) and the health and safety regulations gives rise to an offence.¹⁶ [X] submitted that fear of committing a criminal offence (including the personal liability of directors, officers and managers of a company) makes LPG suppliers risk averse in the face of uncertainties about the rules. Decisions by enforcing authorities as to whether to prosecute are taken in accordance with the HSE's Enforcement Policy Statement. (<http://www.hse.gov.uk/pubns/hsc15.pdf>). No prosecution may go ahead unless the prosecutor finds there is sufficient evidence to provide a realistic prospect of conviction, and decides that prosecution would be in the public interest. It is the HSE's stated position that sensible health and safety is about managing risks, not eliminating them and its position on enforcement reflects this.

¹⁶Section 33 of the 1974 Act (and article 31 of the Northern Ireland Order). These are 'either way' offences which may be heard in the Magistrate's Court (where there is a maximum fine of £20,000 for a breach of duty under the 1974 Act or Northern Ireland Order or to a smaller maximum for breach of a regulation made under the Act) or in the Crown Court (where fines are unlimited).

10. Proceedings for an offence may be brought by an inspector appointed by the relevant enforcing agency, which in Great Britain will be the HSE or Local Authorities.¹⁷ In addition, inspectors have the power to issue improvement notices where the relevant statutory provisions are being contravened and prohibition notices where there is a risk of serious personal injury whether or not the relevant statutory provisions are being contravened.¹⁸ The HSE primarily targets those activities that give rise to the most serious risks or where the hazards are least well controlled. Small bulk LPG tanks at domestic premises do not currently attract proactive inspection by the enforcing authority.¹⁹ As well as the possibility of prosecution, breach of any of the relevant regulations (though not breach of the main duties in the 1974 Act itself) may in some circumstances result in an action for damages by anyone suffering harm as a result.²⁰
11. In addition to health and safety regulations made under the 1974 Act, there are other regulations relevant to the bulk LPG industry which implement EU obligations intended to harmonize product safety standards throughout the EU,²¹ most notably:
- (a) the *Pressure Equipment Regulations 1999*²² (PER), which are relevant to the initial integrity of pressure equipment, rather than its use and ongoing maintenance. They ensure that pressure equipment installed since 1999 satisfies certain relevant essential requirements and benefits from a conformity assessment prior to its supply. Any person installing a tank is required to ensure that it has been manufactured in accordance with recognized standards and is safe for use. Failure to comply with the obligations of the PER is an

¹⁷In Northern Ireland, the enforcement authority will be the Health and Safety Executive for Northern Ireland, the relevant government Department or such other class of person as may be prescribed (Northern Ireland Order, article 20(1)).

¹⁸Sections 21 and 22 of the 1974 Act and articles 23 and 24 of the Northern Ireland Order.

¹⁹[3<]

²⁰Section 47(1) and (2) of the 1974 Act.

²¹There is a degree of overlap between regulations made under the 1974 Act and those implementing EU obligations. A number of the health and safety regulations outlined above implement EU obligations (eg DSEAR, CDGR) or have been made under both the 1974 Act and the European Communities Act 1972 (eg MHSWR).

²²SI 1999 No 2001, as amended. These regulations apply to the UK.

offence, punishable by way of a fine or imprisonment. For further details, see section 3 of the annex; and

- (b) the *General Product Safety Regulations 1994*²³ (GPSR) which provide that a ‘producer’ (which, in this context, would seem to include a person supplying bulk LPG) cannot place a ‘product’ on the market unless it is a ‘safe product’.²⁴ A producer includes the manufacturer of a product and other professionals in the supply chain, insofar as their activities may affect the safe properties of a product placed on the market.²⁵ A ‘product’ means any product intended for consumers or likely to be used by consumers, supplied whether for consideration or not in the course of a commercial activity and whether new, used or reconditioned,²⁶ and could include LPG tanks and accessories and possibly also LPG itself, though [X] argued that it is not clear whether LPG is a manufactured product for the purposes of these regulations. The safety of a product is assessed taking into account factors such as its characteristics and instructions for use. Where a product conforms to specific UK regulations laying down health and safety requirements that the product must satisfy in order to be marketed, there is a presumption that the product is safe. In the absence of specific rules, conformity is assessed taking into account codes of good practice in respect of health and safety in the product sector concerned and the state of the art and technology.²⁷ Failure to comply with the relevant provisions of the GPSR is a ‘strict liability’ offence, subject to a defence of due diligence.

²³ S.I. 1994 No 2328. The 1994 Regulations, which apply to the UK, are due to be replaced this year by new regulations in order to implement Directive 2001/95/EC. Changes to be introduced include new enforcement provisions and extending the scope of products.

²⁴ Regulation 7

²⁵ Regulation 2(1)

²⁶ Regulation 2(1)

²⁷ Regulation 10

Conclusions on safety rationale

Ownership of tank by LPG suppliers

12. None of the obligations currently imposed on LPG suppliers by the legislation outlined above (the relevant legislation) appear to derive from ownership of the tank *per se*. Hence, if ownership vested in the customer or a third party but the LPG supplier was responsible for safety activities (installation, maintenance repair and removal of the tank) under contractual arrangements, there would not appear to be any significant difference to the present situation in terms of the *scope and applicability of the regulatory obligations*. Even if tank installation and removal was the responsibility of a third party, this would not necessarily affect materially the effectiveness of the existing regulatory regime, though separation of different safety activities has the potential, in some circumstances, to reduce the overall integrity of the regime (depending on the precise scope of the contractual arrangements, the previous history of the tank and the nature of the due diligence carried out when the new supplier assumes responsibility for the tank).
13. If the LPG supplier did not own the bulk LPG tank and was not responsible for ‘safety activities’ such as the installation, maintenance, repair and removal of tanks, the application of the relevant legislation would differ from the present situation as follows:
- (a) *GSIUR*: Any commercial entity (including employers or self-employed persons) carrying out safety activities would continue to be subject to the safeguards contained in the *GSIUR*. (In addition, the regulations appear to prohibit domestic customers from undertaking such activities themselves unless they are ‘competent’). However, the LPG supplier has certain obligations placed on him under regulation 37 of the *GSIUR* in respect of gas escapes,²⁸ rather than

²⁸Along with the responsible person for the premises.

the person in charge of safety activities, and difficulties may arise where a tank is defective. Under the regulations, the LPG supplier would be responsible for preventing a gas leak, but would be unable to carry out work on the tank to stop the gas escaping without the permission of the owner of the tank and/or the domestic customer. While, in practice, permission to enter premises and prevent the leak could probably be granted by way of contractual arrangements, some of the major suppliers have suggested that there might be practical difficulties in agreeing and enforcing the necessary obligations and responsibilities ([§<]), and it could be difficult to assign criminal liability under such an arrangement ([§<]). For further details, see paragraphs 1.10 to 1.12 and 1.16 to 1.20 of the annex.

- (b) *PSSR*: The obligations to establish and operate within safe operating limits, to maintain the pressure system in good repair and to set up a written scheme for periodic examination of the tank by a competent person attach to the ‘user’ of the tank, that is the employer or self-employed person who has control of the operation of the tank. A tank under the full control of a domestic customer (ie where the domestic customer has not contracted a commercial entity to carry out safety activities) will not be covered by these regulations. In addition, there is some doubt as to whether these safeguards would apply where a tank-leasing company or other third party was responsible for maintaining and repairing a tank. In such a situation, it is unclear whether the person responsible for maintenance and repair or the person responsible for LPG delivery would be the user for the purpose of the regulations. For further details, see paragraphs 2.21 to 2.31 of the annex.
- (c) *DSEAR*: If the supply and safety activities were separate, two sets of entities would be responsible for complying with the obligations set out in the regulations. However, rather than simply duplicating roles, this could have the effect of reducing the level of overall protection, since the risk assessments and

risk reduction measures of the two entities would only relate to activities within their control and would not extend to the actions and omissions of others. It is not clear to what extent this would undermine the operation of the regulations. For further details, see paragraphs 4.16 to 4.21 of the annex.

(d) *MHSWR*: The effectiveness of the risk assessment and preventative and protective measures contemplated under the regulations could be reduced for the same reasons set out in relation to the DSEAR above.

In addition to these points, [§<] argued that separation of the supply and safety activities could affect liability under the GPSR. As noted above, failure to comply with the relevant provisions of the GPSR is a 'strict liability' offence, subject to a defence of due diligence. It has been put to us that if someone other than the LPG supplier was responsible for inspecting and maintaining the integrity of the tank and its accessories, then a due diligence defence based on the LPG supplier having received an assurance from that other person that the tank and equipment was safe would be unlikely to succeed in the absence of its having taken reasonable steps to satisfy itself that the assurance was accurate and reliable before filling the tank. While we acknowledge that such an argument may have some basis in principle, it does not follow that separation of the supply and safety functions would automatically lead to such an outcome.

Exclusivity of supply

14. In principle, the relevant legislation does not require or favour the use of exclusive LPG supply contracts. However, where there is the possibility of more than one supplier, the safety obligations may be slightly more onerous, and there may be duplication of functions (for further details, see paragraphs 1.21 and 2.33 of the annex).

15. In addition, if exclusivity was not the norm, there would be some uncertainty as to which LPG supplier was responsible for dealing with gas escapes under the GSIUR in the absence of arrangements between the different suppliers (see paragraph 1.22 of the annex).

Uplift of tank when customer switches to new supplier/three month notice

16. The relevant legislation does not require tanks to be uplifted on change of supplier, or regulate the length of the notice period. To the extent that the PSSR applies to domestic bulk LPG tanks, where a tank changes ownership, there is an obligation for the previous owner to pass certain documents on to the new owner such as tank examination reports, though [X] commented that the provisions of the PSSR do not provide for the complete history of the tank or pipework to be transferred to the new owner. (see paragraph 2.16 of the annex).

1. Gas Safety (Installation and Use) Regulations 1998

Origin

- 1.1 The GSIUR were made by the Secretary of State under powers conferred by the 1974 Act. They amend and consolidate a number of pre-existing gas safety regulations, and are of domestic (rather than EU) origin. They apply to Great Britain, though a set of broadly identical regulations also apply in Northern Ireland.²⁹

Relevant provisions

Installation, maintenance and removal of tanks and related pipework

- 1.2 Under the GSIUR, no person may carry out work in relation to a gas fitting or gas storage vessel unless they are 'competent to do so'.³⁰ Bulk LPG tanks fall within the definition of gas storage vessels (which also includes refillable cylinders), while gas fittings include gas pipework, valves and regulators. While there is no definition of 'work' in relation to gas storage vessels,³¹ it is believed that, under the normal meaning of the term, such works would include activities such as installation or reconnection, maintenance, repair, and removal. There is no definition of 'competent' in the GSIUR.
- 1.3 Similarly, another regulation provides that no person shall carry out any work in relation to a gas fitting or gas storage vessel otherwise than in accordance with 'appropriate standards' and in such a way as to prevent danger to any person (again,

²⁹The Gas Safety (Installation and Use) Regulations (Northern Ireland) 2004 (the GSIUR (NI)), which were made under powers conferred by the Northern Ireland Order, contain substantively identical provisions to the GB regulations.

³⁰Regulation 3(1). Definitions of gas storage vessels and gas fittings are contained in regulation 2(1).

³¹The definition of works contained in the GSIUR relate only to gas fittings (regulation 2(1)). However, regulation 34(3) modifies this definition to include gas storage vessels for the limited purpose of the requirement to inform the responsible person if a gas appliance is dangerous.

there is no definition of appropriate standards).³² There are also a number of regulations intended to ensure the safe installation and maintenance of gas fittings and/or gas storage vessels,³³ including restrictions on the siting of storage vessels,³⁴ a requirement to ensure that gas fittings are of good construction and are appropriate for the gas with which it is to be used³⁵ and an obligation not to make alterations to any premises where that would adversely affect the safety of gas fittings and gas storage vessels.³⁶ In addition, there are general obligations not intentionally or recklessly to interfere with a gas storage vessel such that its subsequent use might cause danger, which are imposed on all persons (including the householder).³⁷

1.4 The employer of any persons carrying out such work is required to ensure that the duties imposed on such persons are complied with.³⁸ No employer shall allow any of their employees to carry out works in relation to gas fittings or ‘service pipework’ (the pipes between the gas storage vessel and the emergency control valve), and no self-employed person shall carry out such works, unless that employer or self-employed person is a member of a class of persons approved in writing by the HSE.³⁹

1.5 There are a number of regulations affecting the installation—particularly construction and positioning—and testing of ‘installation pipework’ (pipework extending from the emergency control valve up to, but not inside, the gas appliances).⁴⁰ Most of these

³²Regulation 5(3). A list of standards regarded as appropriate by the HSE is included in the Health and Safety Commission (HSC) Approved Code of Practice and Guidance on GSIUR (1998) at paragraph 60 and Appendix 4. This list includes certain of the LPG Codes of Practice and Guidance, including Parts 1–4 of Code 1.

³³See, in particular, regulations 5 (Materials and workmanship), 6 (General safety precautions), 7 (Protection against damage) and 8 (Existing gas fittings).

³⁴Regulations 6(7) and (8).

³⁵Regulation 5(1).

³⁶Regulation 8(1).

³⁷Regulation 6(9)

³⁸Regulations 3(2) and 3(6).

³⁹Regulation 3(3). The HSE has approved the Council of Registered Gas Installers (CORGI) as the relevant ‘class of persons’ and all employers and self-employed persons must be registered with CORGI as a consequence. While this approval system does not extend to those persons carrying out works on the main body of gas storage vessels, such persons (or their employers) would need to be approved to work on the connected valves and pipework.

⁴⁰Regulations 18–22 (see also HSC Approved Code of Practice and Guidance on GSIUR, paragraph 48). Individual LPG suppliers may apply a higher standard when arranging for the installation of LPG tanks. For example, [X] told us that for work on LPG installations, the normal practice is for such persons to have an LPG endorsement, which further narrows the pool of suitable contractors.

safeguards do not extend to service pipework⁴¹ (which appears to fall within the definition of a gas fitting and hence to benefit from the protections applying to gas fittings). Although the location of the emergency control valve is important in determining what pipes are subject to the controls on installation pipework, there does not appear to be a consistent approach to the siting of this valve in relation to LPG supply.

- 1.6 To the extent that any person working on a gas fitting or gas storage vessel has reason to suspect that a gas appliance is dangerous, that person is obliged to inform the 'responsible person' (normally the occupier) at the premises concerned and (where different) the owner of the appliance.⁴²

Obligation to install a regulator

- 1.7 The GSIUR requires that no person shall 'cause gas to be supplied from a gas storage vessel...to any service pipework or gas fitting' unless a regulator has been installed to control the nominal operating pressure of the gas and that there is an adequate automatic means for preventing the pipework and gas fittings from being subjected to a pressure different from that for which they were designed.⁴³ There is some uncertainty as to the meaning of 'cause gas to be supplied' and consequently as to which person is responsible for installing a regulator. The regulator must be provided and fitted before gas is first supplied, but someone other than the installer of the tank could fit it, for example, the person who first opens the valve or connects the

⁴¹Though the obligation not to install pipework under the foundations of a building or under the base of a wall or footings unless there are safeguards against movement of those structures applies to both installation and service pipework (regulation 19(5)).

⁴²Regulation 34(3).

⁴³Regulation 14(2).

pipe to the premises—if different—and possibly also the supplier of LPG).⁴⁴ In certain circumstances, the consumer of the gas might also qualify.

Meters

1.8 The GSIUR contains a number of obligations concerning the installation, housing and testing of gas meters,⁴⁵ though these are largely irrelevant to domestic bulk LPG (other than in cases of metered estates).

Emergency controls

1.9 The GSIUR provides that the person who enables gas to be supplied for use in any premises for the first time shall ensure there is an appropriately sited emergency control valve to which there is 'adequate access'.⁴⁶ The means of operating the valve should be clearly and permanently marked so as to indicate when the valve is open or shut, along with the procedure to be followed in the event of gas escape.⁴⁷ The first and any subsequent suppliers of gas to premises where an emergency control valve is installed are obliged to ensure that the aforementioned notice remains suitably worded or is amended or replaced.

1.10 The regulations also provide that where any gas escapes from any gas storage vessel, pipe or other gas fitting, the 'supplier' of gas shall, within 12 hours of being informed of the escape, prevent the gas escaping (whether by cutting off the supply of gas to any premises or otherwise).⁴⁸ However, in any proceedings for failure to comply with the aforementioned obligation, it shall be a defence for the supplier of gas to prove that it was not reasonably practicable to prevent the escape of gas

⁴⁴[><] The HSC Approved Code of Practice and Guidance on GSIUR states that an installation should be provided with a regulator (see paragraph 115), but this does not go far in clarifying the issue.

⁴⁵Regulations 12, 13 and 15.

⁴⁶Regulation 9.

⁴⁷[><] informed us that this notice should contain the number to contact in the case of emergency.

⁴⁸Regulation 37. For the purpose of that regulation, any reference to an escape of gas includes a reference to an escape or emission of carbon monoxide gas resulting from incomplete combustion of gas in a gas fitting, though in such a case the requirements on the supplier are limited to advising that person of the immediate action to be taken to prevent such escape or emission and the need for examination and, where necessary, repair of the fitting by a competent person (regulation 37(8)).

within the 12-hour period, and that he did effectually prevent the escape of gas as soon as it was reasonably practicable. In addition, the supplier is entitled to appoint another person to act on his behalf to prevent the escape of gas supplied by that supplier.

1.11 The definition of a gas ‘supplier’ includes a person who provides a supply of gas to a consumer by means of the filling or refilling of a storage container designed to be filled or refilled with gas at the place where it is connected for use ‘whether or not such container is or remains the property of the supplier’.⁴⁹

1.12 The GSIUR does not appear to confer any rights of entry to premises (unlike the natural gas sector, where Transco has wide powers of entry under separate regulations when dealing with an emergency⁵⁰), though it would be in a householder’s interest to grant entry since there is an obligation on the responsible person for any premises who knows or has reason to suspect that gas is escaping to take all reasonable steps to cause the supply of gas to be shut off.⁵¹ We understand that such rights of entry are normally granted to the LPG supplier under contractual provisions, though there may be a lacuna in relation to metered estates, where the purchaser of the gas differs from the users.⁵²

Monitoring and enforcement

1.13 Under the 1974 Act, it is an offence to contravene any health and safety regulation, including the GSIUR. A person guilty of an offence may be liable to a fine.⁵³ The

⁴⁹Regulation 2(1).

⁵⁰Gas Safety (Rights of Entry) Regulations 1996 (SI 1996 No 2535).

⁵¹Regulation 37(2).

⁵²[><]

⁵³The 1974 Act, section 33(3) (and the Northern Ireland Order, article 31(4)).

GSIUR provides certain exceptions as to liability in cases where the relevant person can show he took all reasonable steps to prevent the contravention.⁵⁴

1.14 The HSE is empowered to exempt any person, or class of person from all or any of the requirements or prohibitions imposed under the GSIUR, providing it is satisfied that the health and safety of persons would not be prejudiced by reason of such exemption.⁵⁵

1.15 Proceedings for an offence under GSIUR may be brought by an inspector appointed by the relevant enforcing authority,⁵⁶ which in Great Britain will generally be the HSE in relation to bulk LPG tanks located at domestic premises.⁵⁷

Safety rationale for current practices

Ownership of tank by LPG supplier

1.16 If the LPG supplier did not own domestic bulk LPG tanks, the question arises whether, and how, the operation of these regulations might differ from the present situation.

1.17 If the tank were owned by a third party tank-leasing entity, the regulations governing installation, maintenance and removal of tanks and related fittings would apply to that company (or to any company to which such activities were subcontracted). Similarly, if an LPG tank was owned by the domestic LPG customer, the regulations would apply to the extent that the customer hired someone to install or maintain the tank,

⁵⁴Regulation 39.

⁵⁵Regulation 40.

⁵⁶The 1974 Act, section 38.

⁵⁷By virtue of section 18(7) of the 1974 Act and the provisions of the Health and Safety (Enforcing Authority) Regulations 1998 (SI 1998/494). In certain circumstances, enforcement is undertaken by local authorities rather than the HSE. The basis of the division depends on the main activities being carried out at the plant subject to the health and safety regime. Activities carried on at domestic premises fall within the HSE's remit, though activities related to the provision of permanent or temporary residential accommodation (including caravan parks) fall within the remit of Local Authorities. There are separate enforcement authorities in Northern Ireland (see the Northern Ireland Order, article 20(1)).

and the regulations would appear to prohibit the customer himself from carrying out works on the tank unless he was competent to do so.⁵⁸

1.18 In relation to the obligation to install a regulator, it would appear that the person installing the gas storage vessel would normally be expected to ensure that a regulator was in place (though as noted above, the position is not entirely clear). Although the regulations do not specify an ongoing requirement to check the operation of the regulator when supplying LPG, there is a duty on the supplier not to cause gas to be supplied from a gas storage vessel to any service pipework or gas fitting unless there is a regulator installed which controls the nominal operating pressure of the gas. This could be argued to be an ongoing duty. If the regulator is not checked and is defective (not doing the 'controlling'), the supplier could be at fault. This means that LPG suppliers could breach the regulations if they supplied gas to an LPG tank with a defective regulator; but this would turn on the particular facts.

1.19 In relation to emergency controls, it would be for the supplier, rather than the tank owner, to respond and prevent further escape of the gas (although it should be noted that it is for the responsible person for the premises to take reasonable steps to shut off the supply). This provision may give rise to some difficulty where the tank, or one of the fittings on the tank, is defective. To the extent that the LPG supplier is required to deal with escapes, it would need to obtain the permission of the tank owner by means of some kind of contractual arrangement (though [X] suggested that there could be some practical difficulties in agreeing and enforcing the necessary

⁵⁸This view is supported by the provisions of the HSC Approved Code of Practice and Guidance on GSIUR, paragraph 45. 'It should be noted that a domestic occupier is responsible under civil law for the safety of his premises and is liable in damages in the event that he acts in breach of his statutory duty of care so as to cause injury or damage to those lawfully, and to a more limited extent unlawfully, on his premises' (Occupiers Liability Act 1957 and Occupiers Liability Act 1984). 'A domestic occupier can only avoid liability, where the injury or damage was caused by the negligence of an independent contractor, if he can show he acted reasonably in entrusting the work to an independent contractor and took reasonable steps to satisfy himself both that the contractor was competent and that the work had been done properly' (Occupiers Liability Act 1957, section 2(4)(b)).

obligations and responsibilities). While, in principle, a gas supplier that was unable to enter the premises to prevent the gas escaping would be liable to prosecution, it is a defence for the supplier to prove that it was not reasonably practicable for them effectually to prevent the escape.⁵⁹ In such cases, however, it is not clear who would be responsible for dealing with the event, and it could be more difficult to implement potentially the most effective action for preventing the further escape of gas (ie uplift and replacement of the tank once made safe).

1.20 None of the obligations in the GSIUR appear to derive from ownership of the tank per se. On the contrary, certain duties attaching to LPG suppliers are expressed to apply whether or not the tank is owned by the supplier (see paragraph 1.11). Hence, if ownership were to vest in the customer or a third party but the LPG supplier was responsible for maintenance and repair of the tank under contractual arrangements, there would not appear to be any significant difference to the present situation for maintenance and repair in terms of regulatory coverage (other than the fact that it may be difficult to assign criminal liability to any individual or undertaking for failing to prevent gas leaks, for the reasons set out in paragraph 1.19). Responsibility for installation and replacement of the tank would fall to whoever owned the tank, unless the LPG supplier was also responsible for this under contractual arrangement.

Exclusivity of supply

1.21 In principle, the provisions of the GSIUR do not require or favour the use of exclusive LPG supply contracts. However, where there is a lack of continuity of supply, the safety obligations may be slightly more onerous. For example, as indicated above, every supplier would be obliged to check the suitability of the gas escape notice when it makes its first supply and possibly also on each subsequent delivery.

⁵⁹Regulation 37(5).

1.22 More importantly, if exclusivity was not the norm, it might be difficult to tell which supplier had the obligation to prevent gas escapes.⁶⁰ For example, would the obligation to prevent gas escapes within 12 hours fall on the last supplier of gas, or the supplier that had made most deliveries during a specified period?

Uplift of tank when customer switches to new supplier

1.23 The GSIUR contain no requirement for tank uplift on change of an LPG supplier, though it does ensure that the removal of the old tank and installation of the new tank is carried out by a competent person to an appropriate standard. There may be some confusion about which supplier is required to prevent gas escaping where a tank is transferred with some gas provided by the previous supplier still inside, though this could be dealt with by way of an agreement between the two suppliers.⁶¹

1.24 [3<] commented that where a tank is not uplifted and where it may have been subject to a variety of owners, suppliers and maintainers or contractors over the course of its history, it will be difficult to allocate fault, particularly given the long periods over which a tank may remain in place.

Three-month notice period

1.25 The GSIUR do not lay down any requirement—either directly or indirectly—for a three-month notice period for changing supplier.

⁶⁰[3<]

⁶¹Regulation 37(6) provides that a supplier of gas may appoint another person on his behalf to prevent an escape of gas supplied by that supplier.

2. Pressure System Safety Regulations 2000

Origin

2.1 The PSSR were made by the Secretary of State under powers conferred by the 1974 Act. They re-enact with amendments the Pressure Systems and Transportable Gas Containers Regulations 1989, as amended, and are of domestic origin. They apply to Great Britain, though a set of broadly identical regulations also apply in Northern Ireland.⁶²

Provisions

Scope of application

2.2 The PSSR apply to 'pressure systems', which include systems comprising one or more pressure vessels of rigid construction, any associated pipework and protective devices, containing, or liable to contain, a 'relevant fluid', including gas which is at a pressure greater than 0.5 bar above atmospheric pressure.⁶³ Bulk LPG tanks and their associated fittings fall within this definition.⁶⁴

2.3 The PSSR 'apply to or in relation to pressure systems which are used or intended to be used at work'.⁶⁵ 'Work' is defined in the 1974 Act as 'work as an employee or as a self-employed person', an employee is 'at work' throughout the time when he or she is in the course of their employment, but not otherwise, and a self-employed person is 'at work' throughout such time as he or she devotes to work as a self-employed person.⁶⁶

⁶²The Pressure Systems Safety Regulations (Northern Ireland) 2004 (the PSSR (NI)), which were made under powers conferred by the Northern Ireland Order, contain substantively identical provisions to the GB regulations.

⁶³Regulation 2(1).

⁶⁴The definition of 'pressure system' excludes a pressure receptacle, namely a cylinder, tube, pressure drum, closed cryogenic receptacle or bundle of cylinders. It does not appear that bulk LPG tanks qualify as pressure receptacles.

⁶⁵Regulation 3(2).

⁶⁶Section 52(1) of the 1974 Act.

2.4 References to 'danger' in the PSSR means reasonably foreseeable danger to persons from system failure, but it does not mean danger from the hazardous characteristics of the relevant fluid other than from its pressure.⁶⁷ Safeguards against certain other hazardous characteristics of LPG are contained in alternative regulations, such as the DSEAR (see section 4).

Design and construction

2.5 Any person who designs, manufactures, imports or supplies any pressure system or component part intended to be used at work must ensure that the pressure system is properly designed and properly constructed from a suitable material 'to prevent danger', that the system is so designed and constructed that all necessary examinations to prevent danger can be carried out and that, so far as is practicable, the system is provided with protective devices to prevent danger.⁶⁸

2.6 The supplier (normally the manufacturer or importer) of a pressure system, and the employer of a person who modifies or repairs such a system, are required to provide sufficient written information concerning its design, construction, operation, modification and/or repair (as appropriate) as may 'reasonably foreseeably' be required to allow compliance with the PSSR.⁶⁹

2.7 The manufacturer of a 'pressure vessel' (the term is not defined) is required to mark that vessel with certain specified information, including the manufacturer's name, a serial number, the date of manufacture, and maximum and minimum allowable pressure of the vessel, and it is prohibited to remove or falsify such markings.⁷⁰

⁶⁷Regulation 2(1).

⁶⁸Regulation 4.

⁶⁹Regulation 5(1)–(3).

⁷⁰Regulation 5(4)–(6).

2.8 The PSSR exempts certain pressure equipment which comes within the scope of the Pressure Equipment Regulations 1999 from most of the obligations described above.⁷¹ LPG tanks placed on the market on or after 29 November 1999 are governed by the PER. However, it is believed that the above provisions apply to older tanks.

Installation

2.9 The employer of a person who installs a pressure system at work shall ensure that nothing about the way in which it is installed gives rise to danger or otherwise impairs the operation of any protective device or inspection facility.⁷²

Operational restrictions and obligations on 'users'

2.10 The 'user' of a pressure system is prohibited from operating the system, or allowing it to be operated, unless he has established the 'safe operating limits' of the system.⁷³ Safe operating limits means the operating limits (incorporating a suitable margin of safety) beyond which system failure is liable to occur. A user means the employer or self-employed person who has control of the operation of the pressure system.⁷⁴

2.11 The user of a pressure system is required to provide any person operating the system with adequate and suitable instructions for its safe operation and action to be taken in case of any emergency, and must ensure that the system is not operated except in accordance with those instructions.⁷⁵ The user is also obliged to ensure that the system is properly maintained in good repair, so as to prevent danger.⁷⁶ In addition, the employer of any person who modifies a pressure system at work—

⁷¹Part II of Schedule 1 to the PSSR, paragraph 1(b), which exempts pressure equipment or assemblies to which regulations 7(1), 8(1), 9(1) and 10 of the PER apply from regulations 4 and 5(1) and (4) of the PSSR.

⁷²Regulation 6.

⁷³Regulation 7(1).

⁷⁴Regulation 2(1).

⁷⁵Regulation 11.

⁷⁶Regulation 12.

which may or may not be the user—is required to ensure that nothing about the way it is modified or repaired gives rise to danger or otherwise impairs the operation of any protective device or inspection facility.⁷⁷

Written scheme of examination

2.12 The user of a pressure system cannot operate the system or allow it to be operated unless they have a written scheme for the periodic examination by a 'competent person' of the pressure vessel, related pipework and protective devices.⁷⁸ The scheme must be drawn up, certified as suitable for the purpose of preventing danger and reviewed at appropriate intervals by a competent person. In addition, the scheme should specify the nature and frequency of examination and any measures necessary to prepare the system for safe examination (other than those it would be reasonable to expect the user to take without specialist advice). There is no definition of 'competent' in the PSSR,⁷⁹ and there is consequently scope for variation in its interpretation by LPG suppliers.

2.13 The user of a pressure system is obliged to ensure that system is inspected by a competent person within the intervals specified in the scheme and—when the scheme so provides—before the system is used for the first time.⁸⁰ The competent person is required to carry out the examination properly and in accordance with the scheme, and to send a written report to the user within 28 days of completing the examination. Any repairs or modifications to the pressure system, or changes to the established safe operating limits or scheme of examination, must be carried out by a specified date (unless the competent person agrees to a postponement) or else the

⁷⁷Regulation 13.

⁷⁸Regulation 8.

⁷⁹Though 'competent person' is defined as 'a competent individual person (other than an employee) or a competent body of persons corporate or unincorporated', and any reference in the PSSR to a competent person performing a function includes a reference to his performing it through his employees (regulation 2(1)).

⁸⁰Regulation 9. An LPG code of practice specifies examination intervals (CoP1, Appendix 1).

pressure system cannot be operated thereafter. The user (or one of its employees) may act as the competent person where it is appropriate.

- 2.14 If the competent person carries out an examination under the scheme and concludes that the pressure system will give rise to 'imminent danger' unless certain action is taken, the competent person is required to submit a written report to the user (unless the user is acting as the competent person) and to send a copy of the report to the 'enforcing authority' within 14 days of the examination. The user is prohibited from operating the pressure system until the recommended action has been taken.⁸¹
- 2.15 The PSSR exempts certain pressure systems from the regulations on written schemes of examination if the product of the pressure in bar and internal volume in litres of its pressure vessels is in each case less than 250 bar litres.⁸² However, we understand that this exemption does not apply to bulk LPG tanks, as these are all above 250 bar litres.

Record keeping

- 2.16 The PSSR require the user of a pressure system to keep various information, including the last report of an examination under the scheme, any previous reports which materially assist in assessing whether or not the system is safe to operate or repair, and information concerning the design, construction, examination, operation and maintenance of pressure systems.⁸³ The user is required to keep this information at the premise where the system is installed or at other premises approved by the enforcing authority.⁸⁴ Where the user of a pressure system changes, the previous user is obliged, as soon as is practicable, to give the new user

⁸¹Regulation 10.

⁸²Part II of Schedule 1 to the PSSR, paragraph 2(1), which also applies to regulation 5(4).

⁸³Regulation 14.

⁸⁴The HSE is not aware of any case where it has given approval under Regulation 14 of PSSR to domestic premises.

in writing anything kept by him under the PSSR. [X] commented that the provisions of the PSSR do not provide for the complete history of the tank or pipework to be transferred to the new owner.

Modification of duties where systems supplied by way of lease/hire

2.17 Duties under certain regulations (ie those described above dealing with the obligations to provide suitable instructions for safe operation, to maintain a system in good repair, to implement and enforce a written scheme of examination and to keep records) can be passed on by the user to a person supplying an installed system by way of lease or hire, provided that person agrees in writing to be responsible for discharging the duties of the user under those regulations.⁸⁵

Monitoring and enforcement

2.18 Under the 1974 Act (and the Northern Ireland Order), it is an offence to contravene any health and safety regulation, including the PSSR. A person guilty of an offence may be liable to a fine.⁸⁶ The PSSR provides a defence in any proceedings for a contravention of the PSSR for the person charged to prove that the commission of the offence was due to an act or default of another person not being one of his employees and that he took all reasonable precautions and exercised all due diligence to avoid the commission of an offence.⁸⁷

2.19 The HSE is empowered to exempt any person, or class of person from all or any of the requirements or prohibitions imposed under the PSSR, providing it is satisfied

⁸⁵PSSR, Schedule 2, paragraph 1.

⁸⁶The 1974 Act, section 33(3) and article 31(4) of the Northern Ireland Order.

⁸⁷Regulation 16 of the PSSR and Regulation 16 of the PSSR (NI). A person relying on such an offence is required to give advance written notice to the prosecutor.

that the health and safety of persons would not be prejudiced by reason of such exemption.⁸⁸

- 2.20 Proceedings for an offence under the PSSR may be brought by an inspector appointed by the relevant enforcing authority,⁸⁹ which in Great Britain will generally be the HSE in relation to bulk LPG tanks located at domestic premises.⁹⁰

Safety rationale for current practices

Ownership of tank by LPG company

- 2.21 If the LPG supplier did not own domestic bulk LPG tanks, the question arises whether—and, if so, how—the protection provided by the PSSR would differ from the present situation.

- 2.22 As discussed above, the PSSR apply to pressure systems used or intended to be used *at work*. Given that deliveries of bulk LPG for domestic use are almost invariably made to domestic premises, it is necessary to consider whether such supply falls within the scope of the PSSR.

- 2.23 In advice on the application and interpretation of the PSSR, the HSE states as follows:

...the Regulations apply to pressure systems for use or intended for use at work. This excludes installations where all the system is under the full control of the householder, including responsibility for maintenance of the tank. However, normally the LPG company will have control of and be responsible for filling, maintenance and examination of the tank and related filling and isolation valves.

⁸⁸ Regulation 17

⁸⁹ The 1974 Act, section 38

⁹⁰ For further details, see footnote 56 above. There are separate enforcement authorities in Northern Ireland (see the Northern Ireland Order, article 20(1)).

As there is use at work, PSSR will apply to the tank installation, but not to the “domestic” pipework, fittings and domestic equipment fed from under the tank and under the control of the householder.⁹¹

2.24 While we agree with this view, there are at least three alternative scenarios which are not addressed directly by the HSE circular, namely whether some of all of the regulations would apply if:

- (a) the tank was owned by a third party ‘tank-leasing company’;
- (b) the tank was owned by an individual householder, who outsourced maintenance of the tank to one or a series of commercial entities (contractors); or
- (c) the tank was owned by an individual householder or third party but maintenance was carried out by the LPG supplier under contractual arrangements.

2.25 To the extent that a *tank-leasing company* or *contractor* was responsible for monitoring, maintaining and repairing a bulk LPG tank, there would appear to be a good argument that it was a pressure system used at work (by analogy with the HSE’s argument in relation to LPG suppliers). On this basis, the regulations relating to design, construction and installation (outlined above) would appear to apply where the tank is owned and serviced by a tank-leasing company or contractor.

2.26 A more difficult question relates to whether a tank-leasing company or contractor would qualify as the ‘user’ of a pressure system. If it was obliged contractually to monitor, maintain and repair the tank, it could be said to be ‘in control of the operation of the pressure system’. However, the LPG supplier might also be said to

⁹¹HSE operational circular OC 308/13/Rev, 1 November 2004 version, Appendix 1, paragraph 4. [§<]. The LPGA Code of Practice 1 (bulk LPG Storage at Fixed Installations Part 3: 2000, Examination and Inspection) states that vessels for domestic supplies are not currently within the scope of the PSSR (though it recommends that examination similar to commercial/industrial vessels should take place) (CoP1, section 1.3). In addition, the HSC Approved Code of Practice on PSSR (2000) states that the Regulations do not apply to systems installed at domestic premises (see paragraph 219). However, we understand that there are plans to amend the guidance in the light of the HSE’s latest statement.

be 'in control of the operation of the pressure system' in relation to its delivery functions.

2.27 Under the scheme of the PSSR, it is not clear whether it is possible to have more than one user. If both the tank-leasing company/contractor and the LPG supplier qualified as users for the purposes of the PSSR, this would give rise to significant duplication of functions, as there would need to be two separate written schemes of examination and two people responsible for ensuring the system is properly maintained. While there is scope for more than one interpretation, the better view would appear to be that there can only be a single 'user' for the purposes of the PSSR.⁹²

2.28 On the assumption that there can only be a single user, it would be necessary to determine which commercial entity exercised a greater degree of control over the pressure system.⁹³ Where tank-leasing companies or contractors operating under long-term arrangements are required to monitor, maintain and repair the tank, there would seem to be a *reasonable* argument that such entities would exercise a greater degree of control over the tank than an LPG supplier (though this reasoning is somewhat circular given that such functions are obligations that fall on a user rather than the means of identifying a user). In the case of tank-leasing companies, it would be possible for the LPG supplier to pass on any obligations it might have by agreement in writing—as set out in paragraph 2.17—though such an option would not appear to be available where the tank is owned by the domestic customer.

⁹²This view is supported by the HSC Approved Code of Practice on PSSR, which states that, where more than one employer or self-employed person has an interest in the running of the system, it must be clear to both parties who is responsible as user under the Regulations (see paragraph 53). However, [redacted] disputed this interpretation and asserts that it is possible to have different users for different purposes.

⁹³The PSSR Approved Code of Practice states that a number of factors will determine who has responsibility as the user, including: who decides when the 'plant' will be turned on or off; who decides who has access to the plant; who is responsible for the controls of the plant; and who maintains and runs the plant on a day to day basis (see paragraph 53).

- 2.29 In cases where the householder employed *a series of contractors on an ad hoc basis* to carry out maintenance and repair work, such a contractor would not appear to qualify as a user for the purposes of the PSSR. In such cases, the PSSR would not apply unless the LPG supplier could reasonably be said to be in control of the operation of the tank.
- 2.30 In conclusion, if separate entities were responsible for complying with LPG safety and delivery functions, each entity might experience difficulty in complying with the full range of obligations imposed on a user. It would appear that the more functions are split between different entities, the less likely there is to be a single, identifiable user and consequently the less likely the safeguards contained in the PSSR would be to apply.⁹⁴
- 2.31 If the householder or a third party owned the tank but the *LPG supplier was contractually responsible* for monitoring, maintaining and repairing the tank, there would be a good argument that the LPG supplier was 'in control of the operation of the pressure system', and hence the obligations on the 'user' under the PSSR would attach to the LPG supplier.

Exclusivity of supply

- 2.32 To the extent that a commercial entity such as a tank leasing company or contractor was deemed to be a 'user' under the PSSR, then the main obligations under the Regulations would attach to that entity rather than the LPG supplier, and the exclusivity of LPG supply contracts would not be relevant to the safeguards provided by the PSSR. Similarly, if there was not deemed to be a 'user' within the scheme of the regulations, then the nature of the supply contracts would be irrelevant to the

⁹⁴[3<] stated that it believes that it must comply with the duties on users under the PSSR in order to satisfy its obligations under the 1974 Act and the DSEAR. However, it is not clear that other suppliers would interpret the scope of the regulatory regime in this way.

overall integrity of the PSSR (though, for the reasons outlined above, the safeguards provided in such circumstances would be likely to be reduced).

- 2.33 In cases where an LPG supplier did not own the tank but was contractually responsible for maintenance and repair, then a lack of continuity of supply of LPG, through non-exclusive contracts, would not seem directly to reduce the integrity of the PSSR legal requirements (provided that only one LPG supplier was responsible for safety activities). However, if successive LPG suppliers took on safety activities through a series of short-term contracts, they would each be required to establish safe operating limits and a written scheme of examination. Although there are arrangements under the PSSR whereby the previous user passes on records to the new user, this would not seem to absolve the new user from the responsibility of establishing safe operating limits and a written scheme of examination, and hence there could be significant duplication of resources.

Uplift of tank when customer switches to new supplier

- 2.34 The PSSR do not appear directly to regulate uplift of tanks, and provide no safety rationale for uplift on change of an LPG supplier. [X] argued that there is an element of risk in transferring the tank and forgoing uplift since the PSSR do not provide for the complete history of the tanks or pipework to be transferred to a new owner.

Three-month notice period

- 2.35 The PSSR do not lay down any express requirement for a three-month notice period. However, to the extent that the regulations require a user to establish safe operating limits and prepare and certify a written scheme of examination prior to operating the pressure system, there may be some practical benefit in having a notice period.

3. Pressure Equipment Regulations

Origin

- 3.1 The PER were made by the Secretary of State under powers conferred by the European Communities Act 1972. They implement as regards the United Kingdom Council Directive 97/23/EC⁹⁵ on the approximation of the laws of the Member States concerning pressure equipment.

Provisions

Scope of application

- 3.2 The PER regulate the initial integrity of 'pressure equipment', comprising 'vessels, piping, safety accessories and pressure accessories'⁹⁶ with a maximum allowable pressure greater than 0.5 bar.⁹⁷ Bulk LPG tanks fall within this definition.
- 3.3 The PER do not apply to pressure equipment placed on market before 29 November 1999,⁹⁸ nor do they apply to equipment covered by the EU directive on simple pressure equipment.⁹⁹ We understand that, although the tank itself will come under the simple pressure equipment, the LPG tank installation consisting of the tank and associated valves, pipework, safety devices etc does not, and is covered by PER. The majority of the requirements of PER are placed on the 'responsible person', which is normally the manufacturer or first importers into the EU of the pressure equipment, rather than the person installing the tank.

⁹⁵OJ No L181, 9.7.97, p1.

⁹⁶Regulation 2(2).

⁹⁷Regulation 6.

⁹⁸Regulation 5.

⁹⁹Directive 87/404/EEC.

Regulation of supply of pressure equipment

3.4 There is a general prohibition¹⁰⁰ on placing certain specified pressure equipment on the market (in the European Community) or putting that equipment into service without first complying with a number of requirements. These obligations do not apply equally to all pressure equipment, but only to vessels above a certain size and pressure range, depending on the contents of the vessel. We understand that the PER apply to bulk LPG tanks. To the extent that these regulations do not apply (for example in relation to older tanks), certain provisions of the PSSR concerning the design and construction of tanks apply (see paragraph 2.8).

3.5 The requirements laid down in the PER include the following:

- (a) the equipment must satisfy the 'relevant essential requirements';¹⁰¹
- (b) an appropriate conformity assessment must be carried out;
- (c) a CE marking must be affixed to the equipment;
- (d) a declaration of conformity must be drawn up by the manufacturer; and
- (e) the equipment must in fact be safe.

3.6 There are also obligations to ensure that vessels placed on the market or put into service are designed and manufactured in accordance with sound engineering practice, accompanied by adequate instructions and marked to permit identification of the manufacturer.¹⁰²

¹⁰⁰Regulation 7.

¹⁰¹As set out in Schedule 2 to the PER. These include a general requirement to design, manufacture and (where applicable) equip and install pressure equipment in such a way as to ensure its safety when put into service in accordance with the manufacturer's instructions. There are also a number of more detailed obligations relating to design, manufacturing and materials. The PER incorporate a scheme whereby approval of materials used to make pressure equipment can be obtained (Regulation 17 and Schedule 7).

¹⁰²Regulation 9.

3.7 In addition to the above provisions, there is a general prohibition on supply of pressure equipment unless it is safe¹⁰³ which would extend to LPG suppliers which install tanks. 'Safe' in relation to pressure equipment means that the equipment when properly installed and maintained and used for its intended purpose is not liable to endanger the health or safety of persons and, where appropriate, domestic animals or property.¹⁰⁴

Conformity assessment procedures

3.8 For the purpose of conformity assessment, the PER classifies pressure equipment into a number of categories. The applicable procedure varies according to the level of hazard, with the more onerous procedures (including external certification) applying to the most hazardous equipment.¹⁰⁵

3.9 There are common elements to each conformity assessment procedure. In particular, each contains a requirement for the manufacturer or importer to keep technical documentation at the disposal of relevant national authorities for inspection purposes for a period of ten years.¹⁰⁶

Monitoring and enforcement

3.10 Under the PER, it is an offence to contravene or fail to comply with the obligations described above.¹⁰⁷ Penalties include fine and, in some cases, imprisonment.¹⁰⁸ However, in any proceedings for such an offence, the PER provides for a defence of due diligence.¹⁰⁹

¹⁰³Regulation 10. This is the only obligation which is not on the original manufacturer (or first importer into the EU).

¹⁰⁴Regulation 2(2).

¹⁰⁵Regulations 12 and 13 and Schedules 3 and 4.

¹⁰⁶Schedule 4.

¹⁰⁷Regulation 25.

¹⁰⁸Regulation 26.

¹⁰⁹Regulation 27.

- 3.11 In addition to the offence, the enforcement authorities may apply to the courts for an order for the forfeiture of pressure equipment for private use or consumption on the grounds that there has been a contravention of the regulations outlined above.¹¹⁰
- 3.12 Although the HSE is responsible in Great Britain¹¹¹ for enforcing the application of the PER to pressure equipment used in the workplace, enforcement of the regulations' application for private use is carried out by trading standards authorities. In Northern Ireland, the regulations are enforced by district councils.¹¹²
- 3.13 Proceedings for an offence under the PER may be brought by an inspector appointed by the relevant enforcement authority. It is not clear whether there is an active programme of inspection, though the involvement of outside bodies in certain of the conformity assessment procedures should ensure a degree of scrutiny.

Safety rationale for current practices

- 3.14 The PER are relevant to the initial integrity of pressure equipment, rather than its use and ongoing maintenance.¹¹³ However, to the extent that the PER apply to bulk LPG tanks for domestic use, they will require any person installing the tank to ensure that it has been manufactured in accordance with recognized standards and is safe for use. Any tank not so installed may be subject for an order for forfeiture.
- 3.15 The integrity of the PER, insofar as they apply to bulk LPG tanks for domestic use, would not seem to be affected if the tanks were owned by the domestic customer or a third party, or if exclusive, long-term contracts were not the norm; neither is there any justification in the PER for tank uplift or the three-month notice period.

¹¹⁰Schedule 8, paragraph 4.

¹¹¹Schedule 8, paragraphs 1–3.

¹¹²Schedule 8, paragraphs 1–3.

¹¹³[><]

4. Dangerous Substances and Explosive Atmospheres Regulations 2002

Origin

4.1 The DSEAR were made by the Secretary of State under powers conferred by the 1974 Act. They implement as regards Great Britain Council Directive 98/24/EC¹¹⁴ on the protection of the health and safety of workers from the risks related to chemical agents at work, so far as that Directive relates to safety, and Council Directive 99/92/EC¹¹⁵ on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres. A set of broadly identical regulations also apply in Northern Ireland.¹¹⁶

Provisions

Duty to eliminate or reduce risk from dangerous substances

4.2 The DSEAR require every employer and self-employed person to ensure that risk to a person's safety arising from the hazardous properties of a dangerous substance in connection with work is either eliminated or reduced so far as is reasonably practicable.¹¹⁷ The duty on the employer applies in respect of his employees,¹¹⁸ but also extends to any other person who may be affected by the work carried on by the employer.¹¹⁹

4.3 A dangerous substance includes a substance which, because of its physico-chemical or chemical properties and the way it is used or present at the workplace, creates a risk of a person's safety being affected by a fire, explosion or other similar event. It

¹¹⁴OJ No L131, 5.9.98, p11.

¹¹⁵OJ No L23, 28.1.00, p57.

¹¹⁶The Dangerous Substances and Explosive Atmosphere's Regulations (Northern Ireland) 2003 (DSEAR (NI)), which were made under powers conferred by the Northern Ireland Order, contain substantively identical provisions to the Great Britain regulations.

¹¹⁷Regulation 6. See also the definition of 'risk' in regulation 2.

¹¹⁸The DSEAR apply to a self-employed person as they apply to an employer and an employee and as if that self-employed person were both an employer and an employee (regulation 4(2)).

¹¹⁹Regulation 4(1) (though there are some limited exceptions in relation to some employee-specific protections).

appears that LPG is a dangerous substance for the purposes of the DSEAR, and the HSE's view is that it is covered by the regulations.¹²⁰

4.4 Where it is not reasonably practicable to eliminate risk, an employer is required to apply measures to control risk and to mitigate the detrimental effects of the dangerous substance, so far as is reasonably practicable. Such measures—which must be consistent with the risk assessment carried out by the employer (see below)—include the avoidance or minimizing of the release of a dangerous substance, and ensuring that any release of a dangerous substance is suitably collected, safely contained, removed to a safe place or otherwise rendered safe. In addition, the employer is obliged to arrange for the safe handling, storage and transport of dangerous substances. Certain general safety measures are specified in the DSEAR,¹²¹ including incorporating a means for manual override for shutting down equipment.

4.5 Employers are required to make arrangements to deal with accidents, incidents and emergencies related to the presence of a dangerous substance at the workplace, including providing appropriate first aid facilities, making available information on emergency arrangements, and establishing suitable warning systems and escape facilities.¹²² 'Workplace' means any premises or part of premises used for or in connection with work, and includes any place within the premises to which an employee has access while at work and any road used as a means of access or egress from that place of work except a public road.¹²³ On this basis, domestic premises to which LPG is delivered would fall within the definition of 'workplace'.

¹²⁰[><]

¹²¹Regulation 6(8) and Schedule 1 to the DSEAR.

¹²²Regulation 8.

¹²³Regulation 2. The equivalent regulation in the DSEAR (NI) refers only to a 'road', rather than a 'public road'.

Duty to carry out risk assessment

4.6 Where a dangerous substance is present at the workplace, the employer must make a 'suitable and sufficient assessment of the risk to his employees' (and, by implication, other persons affected by the work carried on by the employer).¹²⁴ The risk assessment should include consideration of the following:

- the hazardous properties of the dangerous substance;
- the work processes used;
- the amount of substance involved;
- the arrangements for the safe handling, storage and transport of dangerous substances;
- activities such as maintenance where there is the potential for a high level of risk;
- the likelihood that an explosive atmosphere will occur;
- the likelihood that ignition sources will be present; and
- the scale of the anticipated effects of a fire or explosion.

4.7 The risk assessment must be reviewed regularly and, where necessary, updated. In relation to employers employing five or more employees, there are additional obligations to record significant findings of the risk assessment including any measures that have been or will be taken by the employer pursuant to the DSEAR. No new activity involving a dangerous substance can commence until an assessment has been made and the measures required by the DSEAR have been implemented.

4.8 In addition to the obligation to carry out a risk assessment, the DSEAR require employers to classify places at the workplace where an explosive atmosphere may occur into hazardous or non-hazardous places, and to sub-classify hazardous places

¹²⁴Regulation 5.

into zones of varying risk.¹²⁵ The types of newly introduced equipment that can be used in the different zones vary depending on the degree of risk involved.¹²⁶ However, gas fittings within the meaning of the GSIUR located in domestic premises are exempt from this classification scheme.¹²⁷

Duty to provide information and instruction

- 4.9 Where a dangerous substance is present at the workplace, the employer is required to provide his employees with suitable and sufficient information, instruction and training on the appropriate precautions and actions to safeguard himself, other employees and any person affected by the work carried on by the employer.¹²⁸
- 4.10 There is an obligation to ensure that the containers and pipes used at work for dangerous substances are clearly labelled to identify their contents, the nature of those contents and any associated hazards.¹²⁹ In principle, this obligation would seem to extend to marking bulk LPG tanks.

Duty of coordination

- 4.11 Where two or more employers share the same workplace (whether on a temporary or a permanent basis) where an explosive atmosphere may occur, the employer 'responsible for the workplace' is required to coordinate the implementation of all the measures required by the DSEAR to be taken to protect employees (and other persons) from any risk from the explosive atmosphere.¹³⁰

¹²⁵Regulation 7(1) and Schedule 2. However, in the case of a workplace which has been in use on or before 30 June 2003, employers are not required to comply with regulation 7 until 30 June 2006 (see transitional provisions at regulation 17(2)).

¹²⁶Regulation 7(2) and schedule 3.

¹²⁷Regulation 3(2)(c).

¹²⁸Regulation 9.

¹²⁹Regulation 10. There are certain exceptions to this requirement where Regulations listed in Schedule 5 apply, but it does not appear that any of the other Regulations listed would apply to bulk LPG tanks or associated piping.

¹³⁰Regulation 11.

4.12 There is no definition of ‘responsible for the workplace’ contained in the DSEAR. This obligation does not apply in relation to gas fittings within the meaning of the GSIUR,¹³¹ and does not apply until 30 June 2006 to a workplace which is or has been in use before 30 June 2003.¹³²

Monitoring and enforcement

4.13 Under the 1974 Act (and the Northern Ireland Order), it is an offence to contravene any health and safety regulation, including the DSEAR. A person guilty of an offence may be liable to a fine.¹³³

4.14 The HSE (and in Northern Ireland the Health and Safety Executive of Northern Ireland) is empowered to exempt any person, or class of person, or any dangerous substance from all or any of the requirements or prohibitions imposed under the DSEAR, providing it is satisfied that the health and safety of persons would not be prejudiced and that the exemption will be compatible with the requirements of the EU Directives implemented by the DSEAR.¹³⁴

4.15 Proceedings for an offence under the DSEAR may be brought by an inspector appointed by the relevant enforcing authority,¹³⁵ which in Great Britain will generally be the HSE in relation to bulk LPG tanks located at domestic premises.¹³⁶

¹³¹Regulation 3(2)(c).

¹³²Regulation 17(2).

¹³³Section 33(3) of the 1974 Act and section 31(4) of the Northern Ireland Order. In principle, imprisonment may also be available where an explosive substance might be used in a certain way which contravenes the DSEAR (section 33(4)(c) of the 1974 Act), but this is unlikely to occur in practice.

¹³⁴Regulation 13.

¹³⁵The 1974 Act, section 38 (and the Northern Ireland Order, article 35).

¹³⁶For further details, see footnote 56 above. We understand that Petroleum Licensing Authorities (which are ‘local authorities’) have a limited enforcement role in relation to DSEAR. There are separate enforcement authorities in Northern Ireland (see the Northern Ireland Order, article 20(1)).

Safety rationale for current practices

Ownership of tank by LPG company

- 4.16 If the LPG supplier did not own domestic bulk LPG tanks, and was not responsible for the maintenance of such tanks, the question arises whether—and, if so, how—the protection provided by the DSEAR would be differ from the present situation.
- 4.17 In principle, the DSEAR may be relevant to a number of activities related to the supply of bulk LPG for domestic use. The regulations will clearly apply to LPG delivery by an LPG supplier to the domestic customer. They would also apply to other work activities which give rise to the risk of a hazardous event involving LPG—such as a gas explosion or gas leak—including maintenance, repair and uplift of the tank.¹³⁷ However, installation of the tank prior to the introduction of any gas would not appear to be a regulated activity under the DSEAR (other than the possibility of dangerous substances involved, for example, in the welding process).
- 4.18 The LPG suppliers will continue to be bound by the DSEAR in relation to their LPG supply activities and any necessary tank uplift. Hence, they will be under a duty to reduce risk arising from the hazardous properties of LPG when making deliveries and uplifting tanks, and to carry out a risk assessment in relation to these activities. Likewise, any commercial enterprise which becomes responsible for tank safety (such as a tank-leasing company or a tank maintenance company) will be under similar responsibilities in relation to those activities.
- 4.19 It is not clear whether the separation of LPG delivery and safety activities would lead to any lessening of the protections provided under the DSEAR. It has been argued that if responsibility for safety were no longer in the hands of the LPG suppliers, the

¹³⁷The HSE has confirmed that the DSEAR apply to the uplift of tanks, as well as to the filling of tanks [3<].

risk assessment would have to take into account that the installation was no longer under their control and the measures that could be taken to minimize the risk attaching to the tank infrastructure would be limited because the continued safety of the tank would depend on the actions or omissions of a third party.¹³⁸

4.20 In summary, there is a possibility that if tank ownership was not in the hands of the LPG supplier, and a different commercial entity was responsible for maintenance and repair of the tank, then the degree of protection provided by DSEAR would be compromised. However, in the absence of details as to the nature and scope of risk assessments and risk reducing measures carried out under the current regime, it is difficult to assess the degree of risk with any certainty.

4.21 To the extent that the domestic customer or a third party owned the tank but the LPG supplier was contractually responsible for maintaining and repairing the tank (and under such contractual arrangements no other entity was entitled to work on or interfere with the tank), there would appear to be no difference to the current situation in terms of the degree of risk, providing the LPG supplier had carried out a suitable assessment of the tank when taking on responsibility for the safety activities.

Exclusivity of supply

4.22 Where there is a lack of continuity of supply of LPG, through non-exclusive supply contracts, there is likely to be some duplication of resources, as each supplier would be required to carry out their own risk assessment at the same set of premises.

¹³⁸ [X]

Uplift of tank when customer switches to a new supplier

4.23 Although the DSEAR apply to the uplift of tanks which still contain LPG, they do not provide any safety rationale for uplift on change of an LPG supplier.

Three-month notice period

4.24 The DSEAR do not lay down any express requirement for a three-month notice period. However, to the extent that the regulations require an LPG supplier to carry out a risk assessment, there may be some practical advantage in having a notice period.

5. Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004

Origin

5.1 The CDGR were made by the Secretary of State under powers conferred by the 1974 Act. They implement as regards Great Britain a number of EU directives concerning the carriage of goods by road and rail and the use of transportable pressure equipment,¹³⁹ and also make certain other provisions. We understand that responsibility for the CDGR has been transferred from the HSE to the Department of Transport. As yet, no implementation has been effected in Northern Ireland, though we understand that equivalent Northern Ireland regulations are due to come into effect in the autumn 2005.

Provisions

5.2 The CDGR apply certain requirements and prohibitions in relation to the carriage of goods by road, which are enshrined in the European Agreement concerning the

¹³⁹Council Directive 94/55/EC (OJ No L319, 12.12.94, p.7) on the approximation of the laws of Member States with regard to the transport of dangerous goods by road, as amended; Council Directive 96/49/EC (OJ No L235, 17.9.96, p.25) on the approximation of the laws of Member States with regard to the transport of dangerous goods by rail, as amended; and Council Directive 1999/36/EC (OJ No L319, 12.12.94, p.7) concerning transportable pressure equipment.

International Carriage of Dangerous Goods by Road (ADR). These relate to matters such as the training of persons involved in the carriage of dangerous goods, labelling of consignments, quality of the equipment used and reporting of accidents and incidents. There are certain obligations on carriers relating to the unloading and handling of dangerous goods,¹⁴⁰ though it is not clear to what extent these extend beyond the delivery vehicle to the bulk LPG tank and the wider site. While there does not appear to be any *express* obligation requiring the LPG supplier to ensure the bulk LPG tank is safe prior to delivery, the point is not entirely clear.¹⁴¹

- 5.3 The CDGR also impose certain requirements on transportable pressure equipment, similar to those contained in the PER. They are unlikely to apply to the use of bulk domestic LPG tanks, though there is an exemption for carriage of a storage tank when it is 'nominally empty'.¹⁴² This would exempt an LPG tank that was moved to a new location, provided it had been emptied as far as possible before movement.

6. Management of Health and Safety at Work Regulations 1999 (MHSWR)

Origin

- 6.1 The MHSWR were made by the Secretary of State under powers conferred by the 1974 Act and the European Communities Act 1972. They re-enact with amendments the Management of Health and Safety at Work Regulations 1992 and give effect in Great Britain to certain provisions of Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of

¹⁴⁰Regulation 23.

¹⁴¹[><] asserted that the process of carriage continues up to the point of delivery and is not complete until the LPG is discharged into the domestic tank. Accordingly, it argues that the general safety measure contained in the ADR appears to place a duty on LPG suppliers to take reasonable steps to satisfy themselves that the tank is indeed safe before discharging the load.

¹⁴²Regulation 5(14).

workers at work. A set of broadly identical regulations also apply in Northern Ireland.¹⁴³

Provisions

6.2 The MHSWR require employers (and self-employed persons) to carry out a 'suitable and sufficient' assessment of the risks to the health and safety of their employees while at work and to other persons affected by the conduct of their undertakings.¹⁴⁴

The assessment of risks is to enable the employer (and self-employed) to identify the measure he needs to take to comply with the requirements and prohibitions imposed on him by the 'relevant statutory provisions',¹⁴⁵ which include the provisions of Part 1 of the 1974 Act and any health and safety regulations made under the 1974 Act such as the GSIUR, PSSR and DSEAR. Similar provisions apply under the Northern Ireland Order.¹⁴⁶

6.3 An employer is required to make and give effect to such arrangements as are appropriate (having regard to the nature of their activities and the size of their undertaking)¹⁴⁷ for the effective planning, organization, control, monitoring and review of the 'preventative and protective measures' they need to take in order to comply with 'relevant statutory provisions'.

6.4 An employer is required to appoint one or more competent persons to assist them in undertaking the measures they need to take to comply with the relevant statutory provisions.¹⁴⁸ In addition, the employer must establish and give effect to appropriate

¹⁴³The Management of Health and Safety at Work Regulations (Northern Ireland) 2000, which were made were made by the Department of Enterprise, Trade and Investment under powers conferred by the Northern Ireland Order and the European Communities Act 1972.

¹⁴⁴Regulation 3(1). There is also an obligation to review the assessment where there is reason to suspect there has been a change of circumstances (regulation 3(3)) and to record significant findings where an employer employs five or more employees (regulation 3(6)).

¹⁴⁵As defined in section 53 of the 1974 Act.

¹⁴⁶The Management of Health and Safety at Work Regulations (Northern Ireland) Order 2000 (NHSWR (NI)).

¹⁴⁷Regulation 5(1).

¹⁴⁸Regulation 7.

procedures to be followed in the event of serious and imminent danger to persons at work in their undertaking and nominate a sufficient number of competent persons to implement those procedures insofar as they relate to evacuation from the premises.¹⁴⁹

6.5 The employer should ensure that his employees are provided with comprehensible and relevant information on the risks to their health and safety identified by the assessment, the preventative and protective measures and the procedures to be followed in the event of serious or imminent danger and for danger areas.¹⁵⁰ In entrusting tasks to his employees, an employer must take account of their capabilities as regards health and safety.¹⁵¹ Employees are under reciprocal duties to follow training and instructions provided by the employer in compliance with requirement imposed by the relevant statutory provisions.¹⁵²

Enforcement

6.6 Under the 1974 Act (and the Northern Ireland Order), it is an offence to contravene any health and safety regulation, including the MHSWR (or equivalent Northern Ireland regulations). A person guilty of an offence may be liable to a fine.¹⁵³ Unlike certain other health and safety regulations, there does not appear to be an express exception as to liability where the employer can show he took all reasonable steps to prevent the contravention.¹⁵⁴ Instead, the regulations provide that an employer will not have a defence in any criminal proceedings for contravention of any relevant

¹⁴⁹Regulation 8.

¹⁵⁰Regulation 10.

¹⁵¹Regulation 13.

¹⁵²Regulation 14.

¹⁵³The 1974 Act, section 33(3) (and the Northern Ireland Order, article 31(4)). Regulation 28 specifies that the MHSWR shall, to the extent that they would not otherwise do so, have the effect as if they were health and safety regulations within the meaning of Part I of the 1974 Act.

¹⁵⁴Though the 1974 Act provides that where the commission by any person of an offence is due to the act or default of some other person, that other person shall be guilty of an offence (section 36(1)).

statutory provision by reason of any act or default of his employees or any competent person appointed.¹⁵⁵

- 6.7 Proceedings for an offence under MHSWR may be brought by an inspector appointed by the relevant enforcing authority,¹⁵⁶ which in Great Britain will generally be the HSE in relation to bulk LPG tanks located at domestic premises.¹⁵⁷

Safety rationale for current practices

- 6.8 As in the case of the DSEAR (see paragraphs 4.19 and 4.20), there is a possibility that if tank ownership was not in the hands of the LPG supplier, and a different commercial entity was responsible for maintenance and repair of the tank, then the degree of protection afforded by the risk assessment described above would be compromised. Similarly, where there is a lack of continuity of supply of LPG, through non-exclusive supply contracts, there is likely to be some duplication of resources as each supplier would be required to carry out their own risk assessment at the same set of premises. However, there does not appear to be any justification in the MHSWR for tank uplift or the three month notice period.

¹⁵⁵Regulation 21.

¹⁵⁶The 1974 Act, section 38.

¹⁵⁷For further details, see footnote 56. There are separate enforcement authorities in Northern Ireland (see the Northern Ireland Order, article 20(1)).