

**Mrs Anne Ferguson and Mrs Louise Smith**  
**Core Participants**

**Recommendations**

We have set out below our proposed recommendations:

- (a) The pipework should be installed by a competent person and overseen by an identified individual. In our view the "competent person" should be the gas company (supplier)
- (b) The responsibilities of the customer and the supplier for the LPG system including the pipework should be clearly defined and explained
- (c) A schedule of maintenance for the LPG system should be put in place at the time of installation
- (d) The pipework (in particular if underground) should be tested at regular intervals
- (e) LPG pipework should be clearly identifiable on the premises by mapping and diagrams
- (f) An LPG detection system should be mandatory as part of an LPG installation
- (g) Pyrotechnic light switches should replace regular light switches in areas of buildings exposed to LPG
- (h) There should be a clear system to ensure that any Health and Safety Executive (hereinafter referred to as HSE) recommendations and/or instructions have a deadline for the action to be completed and are followed up
- (i) The HSE system should be continuous and clearly accessible to all HSE Inspectors (to ensure continuity)

- (j) LPG users should be advised by HSE of the differences between recommendations and enforceable directives. The consequences, if action was not taken, should also be explained
- (k) HSE should have the freedom to take actions against (prosecute) companies
- (l) HSE spot checks should be implemented
- (m) One person, the "Dutyholder", should be formally identified within the ICL as being responsible for Health and Safety and liaising with HSE and the gas supplier(s)
- (n) The Dutyholder must have the knowledge, training and expertise in line with the post. There should be a requirement to keep "up to date" with best practice
- (o) Information of the HSE website should not be chargeable and be freely available
- (p) There should be a channel of communication between HSE, the gas suppliers and customers to ensure that information regarding major incidents or new risks are highlighted.
- (q) Employees should be informed about the risk of LPG and information should be provided as to what to do in case of detection.

Our proposed recommendations are set out below in more detail.

### **Installation**

- **A competent person should be present during the installation or at the completion of the installation of the LPG pipework.** In our view this means that LPG should be installed fully by the gas company.
- As with Natural Gas, **gas companies should have full responsibility for installing the whole LPG gas system** – including gas, pipes, digging, and backfilling. The cost of this should be met by the user of the LPG.

- **There should be an identified individual that oversees the installation of the LPG system.** This communication should extend from the digging for the pipework to the laying pipes and subsequently the backfilling.
- To ensure that LPG pipework is properly maintained, as part of the installation process there should be a **maintenance contract** or a clause within the contract with the gas supplier to ensure that the pipework is checked as often as the gas supplier recommends after installation.

#### **Maintenance of LPG pipework**

- There should be a **requirement to test the pipework at regular intervals** and this should be recorded by means of a certificate.
- To ensure awareness of LPG pipework on premises **plans/maps should be drawn up identifying the layout of pipework and clearly mapping its location.** This should be responsibility of the LPG user.
- Consideration should also be given to the use of **ground testing** in relation to LPG pipework.

#### **Safety measures**

- **An LPG detection system should be a mandatory part of the LPG installation.** There was evidence during the course of Phase One of the Inquiry about the stanching agent in LPG. It is our understanding, following this evidence, that a stanching agent is only as buoyant as LPG gas. As LPG gas is heavier than air this would mean, and appears to be supported in the evidence, that the gas leak would only be detected at the point of the gas leak, in this case in the basement.
- Measures should be put in place to increase awareness of the smell of LPG, in particular, amongst employees and **procedures put in place to be followed if LPG was detected.**

- **Pyrotechnic light switches should replace regular light switches** in areas of a building exposed to LPG.

## Inspection

- **All HSE recommendations should be stated clearly and followed up.** There should be a clear system which ensured that any HSE recommendation or instruction had a deadline for action to be completed. Dates for revisits should be agreed to ensure that companies have acted upon the recommendations.
- **This system should be continuous and clearly accessible to all HSE staff that could be potentially involved in visits.** So if a new member of staff took over the next steps to take would be clear. If different members of staff were checking different risks then all issues would be shared and not held separately in their specific area.
- **Clear rules and instructions should be given to LPG users with regard to the distinction between a recommendation and enforceable directives.** More of the system should be enforceable and the LPG user should be required to enforce the HSE direction under law. There needs to be clear consequences if action is not taken
- **There should be a clear line of responsibility for Health and Safety within commercial premises/industries supplied with LPG.** Company Directors and Executives ultimately need to take responsibility for ensuring there is a properly trained person within the company who is dedicated to this purpose
- **HSE should have the freedom to take action against a non-compliant company.** Concerns over the consequences surrounding actions that do not lead to successful conclusion should not be prohibitive – ie if HSE has a valid concern they should have the power to investigate, or intervene without having to ensure that their case is 100% watertight.

- **Spot checks should be implemented** to ensure that measures are not implemented purely for the visit of HSE Inspectors. This would provide HSE with an accurate account of processes.

### Management

- **There should be one person formally identified in an LPG user's premises as the person responsible for dealing with Health and Safety and liaising with HSE and external agencies such as gas suppliers.** Such roles and responsibilities should be documented and updated to reflect the current Dutyholder.
- **Once identified the Dutyholder must have knowledge, training and expertise in line with the post.** This can't just be a title, the person must have responsibility for and ownership of the communication with HSE and external agencies
- **Dutyholders should be required to refresh their knowledge of Health and Safety regulations** to ensure that they are aware of latest regulations and best practice. Training courses could be run by an external body or HSE to update dutyholders on changes in practice, for example.
- **All information/advice from HSE website should be freely accessible to ICL (and in other circumstances private companies) to encourage good practice – no aspect should be chargeable**

### Education and distribution of information

- There should be **dissemination of information** amongst the gas companies and HSE with regard to LPG. There should perhaps be an alert system in place (possibly through an intranet or by email) to highlight incidents, such as Daventry, that highlight a new risk that inspectors /employees may not be aware of. There may also be merit in a table of all LPG leakages being published and alerted to customers.

- **Employees should be informed about the risk of LPG and information should be provided as to what to do in case of detection.** If someone smells natural gas they usually know to leave the building as they are aware of the smell. It was not clear from the evidence in Phase One if, even if someone had detected the smell, they would have known that it was LPG.

#### Sustainability of premises/Building and Property Maintenance

- **There should be Health and Safety checks to include regular standard checks.** There should also be, at least annually;
  - a check on the fabric of the building
  - checks to an extensions/alterations/additions
  - works done to ensure certification

These measures would have ensured that any work undertaken was done by a qualified professional.

#### Summary

- There is an evidence based model of effective good practice in the system around installing, managing, maintaining and inspecting natural gas. Any changes proposed should look to replicate this model in as many ways as possible.
- In summary, the key recommendations relate to the installation, management, maintenance and inspection of the LPG regime and in particular the pipework. There should also be consideration given to further safety measures that could be implemented and education across the industry.

**Mrs Anne Ferguson**

**Mrs Louise Smith**