

**Comments by the Health and Safety Executive on the Conclusions of Rod Sylvester
Evans, contained within his Report for the ICL Inquiry**

Preamble

The Health and Safety Executive (HSE) has been invited to comment on the recommendations proposed by Rod Sylvester Evans. In so doing, HSE has taken chapter 8 of Mr Sylvester Evans' report containing conclusions and recommendations and commented on each one. When HSE's position on a particular matter has been set out in HSE's paper on the proposed oversight regime (previously submitted to the Inquiry), reference is made to that paper.

[ICL/09726
-09731]

In making recommendations for the future HSE believes it necessary to attempt to stand back and to consider the whole picture. As stated in the oversight submission any changes to the H&S regime should aim to:

- (a) be fit for purpose
- (b) be specific in addressing any defects or gaps identified in the current regime;
- (c) reflect the principle that those who create risks should be responsible for managing and mitigating them;
- (d) build on available knowledge and information, much of which is in the hands of suppliers and users;
- (e) be proportionate to the risk;
- (f) be properly administered; and
- (g) be based on a thorough analysis of the issues and deal with risks in priority order.

HSE invites the Inquiry to review these conclusions and recommendations in the context of the hierarchical approach to managing risks, set out in its submission on the LPG oversight regime (based on statutory requirements). From this, it should be clear that, in HSE's view, the prime objective should be to ensure the replacement of pipes at risk of corrosion.

Mr Sylvester Evans has based his recommendations and conclusions on the contributory factors that he has identified arising from the "existing LPG regime". It is noted that the report does not clarify exactly what is meant by "regime". For the purpose of this response HSE takes the view that it includes guidance, advice, inspection, enforcement and legislation.

HSE's comments follow the format and numbering of Mr Sylvester Evans' report repeating the text in Chapter 8, with HSE's comments following each section.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 *Having considered the background to the incident and having analysed the Phase 1 "Findings in Fact" prepared by parties, there appear to have been a number of contributory factors that arise from the existing LPG regime. I have grouped the weakness and potential defects in the current LPG regime highlighted by the ICL tragedy into three broad categories, namely:*

- *Poor LPG pipework integrity and its "ownership";*
- *Poor awareness and management of LPG hazards & risks; and*
- *Poor communication, learning and sharing of knowledge. [ICL/09726]*

8.2 *An essential purpose of any change is the need to encourage LPG users to know and comply with their statutory duties. Formal clarification of ownership and responsibility for each and every part of a LPG system is a starting point. I then suggest the LPG user is required to prepare a "Safety Dossier" on the LPG system with the key objectives to:*

- *Enable the LPG user to demonstrate it complies with the HSWA and all its relevant statutory provisions;*
- *Provide a source document available on site to secure "knowledge" and facilitate the management of LPG safety, e.g. training, control of modifications and change, inspection and maintenance etc;*
- *Provide transparency for easier and more effective regulatory oversight.*
[ICL/09726]

While the safety dossier concept could be pursued as good practice, HSE queries whether this requirement would be proportionate if placed on all commercial LPG users. Any HSE guidance or regulation which it is felt would be appropriate would require an impact assessment carried out. [ICL/14400 - 14409]

An impact assessment allows alternative solutions (legislative or not) to be considered, their impacts assessed, and associated existing legislation or regulation to be considered for contradictions or compatibility. In line with the UK Government's 'Think Small First' initiative, HSE considers the impact (including the costs benefit) of their policies on small businesses. HSE is concerned to ensure that its proposals do not discriminate unfairly against any person or group.

It may be that following upon such an assessment of alternatives (either by the Inquiry or by HSE separately) that it is concluded that the existing requirement of the risk assessment by each LPG user as a duty holder under the HSWA provides the same information as would be required by the suggested safety dossier and would, if implemented, result in the same end. [ICL/04618 - 04691]

- 8.3 *To encourage compliance with LPG codes and general good practice, I suggest a mechanism be found whereby the LPG user embraces a "verification scheme". This would involve an independent competent person (ICP) verifying the integrity of the LPG system and ensuring that suitable controls and mitigation measures are in place at the user's site. The verification needs to be undertaken periodically and failure to meet acceptable standards would mean LPG should not be supplied on to that site and doing so would be a criminal offence.* [ICL/09726]

In the oversight submission (paragraph 39), HSE recognises that the idea of third party inspection should be considered. There are a number of options for such a scheme all of which should be evaluated and impact assessed. The question of who would oversee such an inspection regime requires to be clarified as this does not appear to form part of Mr Sylvester Evans' conclusions. The introduction of any new criminal offence, for the supply of LPG to an unverified site, would need careful consideration, to ensure it was a proportionate response to the problem. [ICL/50923]

- 8.4 *In addition, I suggest some limited, but prescriptive, measures be taken at LPG user sites to limit the potential for gas migration and accumulation in unventilated*

spaces on existing facilities which were not designed and constructed to meet current codes and standards. These involve ensuring that, wherever feasible, pipework entry points into buildings are above ground and that pipework, plant and appliances are not located in unventilated spaces. [ICL/09726]

Please see the LPG oversight submission (paragraph 43) for HSE's comments on [ICL/30924] ventilation, leak detection and pipes in basements.

8.5 For such measures to be successful, greater engagement of the LPG supplier with the LPG user will be required. In turn, this will require more communication and sharing of knowledge between the parties. This should include the collection of LPG incidents and failures, their analyses and the timely dissemination of lessons learnt. [ICL/09727]

HSE agrees that the dissemination of knowledge is useful and from experience knows that such dissemination has to be appropriate and discriminatory in order that it has any impact. HSE is of the view that this is best done in this situation by a voluntary raising of awareness rather than a prescriptive data collection regime. LPG has been in use for many years and its properties and the hazards caused by them are well known by most if not all supply companies and by some users. The challenge for any scheme for dissemination of knowledge is to add new information to those already well informed and to persuade others of the relevance of information to their undertaking.

8.6 A critical aspect is to assess the scale of the overall potential associated with buried metallic pipework and to identify "high risk" sites and set priorities for remedial action. LPG suppliers have a crucial role to play in this activity but need to be supported by joint UKLPG and HSE/LA initiatives. [ICL/09727]

HSE agrees that this is a critical matter and that it is appropriate to proceed by way of joint initiatives as suggested. Such initiatives will be effective if they are fully discussed and consulted upon. HSE will continue to work together with the supply companies and users to achieve this.

8.7 Whilst I have not considered the details of regulatory inspection, I believe it is most important to ensure there is equal clarity in the responsibility of regulatory oversight for each industrial and commercial LPG site. There should be clarity as

to who is responsible for reviewing that the building/structural safety is commensurate with the LPG risks in the workplace. [or indeed any other risks] [ICL/09727]

HSE would expect building control officers to lead on matters of building/structural safety. HSE inspectors would alert them if concerned by something they had found. A similar arrangement exists for informing the Fire and Rescue service for significant issues for which they are responsible.

8.8 I have identified and devised changes to the current regime, for consideration, without recourse to a substantive change in legislation. This should be an advantage. But it invites a well focused collaborative approach between parties to identify effective mechanisms to achieve and implement the changes. [ICL/09727]

In general, HSE thinks it would be helpful to establish for each of the following recommendations what is prescriptive and requires regulation (and then enforcement by someone identified for the purpose), and what is voluntary.

8.9 I divide my recommendations into a) substantive recommendations involving suggested improvements to be considered by the Inquiry and parties and, in support of these, b) additional aspects on which the Inquiry may wish to take evidence. For convenience, the recommendations are numbered sequentially below together with a reference to the paragraph as to where it appears in the main text of the Report. [ICL/09727]

It is noted in passing that Mr Sylvester Evans makes recommendations without making it clear who or which party ought to have responsibility for the implementation for those recommendations. This is an area which would benefit from further consideration and HSE would be happy to participate.

A) Substantive Recommendations

I recommend that for bulk LPG at industrial and commercial sites:

- 1. Wherever possible, the number of "interfaces" between responsible parties should be reduced to the minimum so they can be managed actively (3.3.1). [ICL/09727]*

HSE is not entirely clear what suggestion is being made, but supports the position that all interfaces between parties must be managed actively and that each party must be fully aware of their respective duties. The number of parties cannot be limited by legislation and if

the "independent competent person" (recommendation 6, below) suggestion is ultimately accepted then further interfaces will be introduced and must be managed in a similar way. It is not clear how Mr Sylvester Evans proposes to obtain the reduction in interfaces which, it can be seen from paragraph 2.3.1 at page 15 of his report, may be numerous. [ICL/09689]

2. *Each party has:*

- *A clear account of who has legal title to each part of LPG system and the land on which it is placed;*
- *A clear account of who has legal responsibilities under the HWSA and its relevant statutory provisions;*
- *A diagram, which is created and maintained in an accessible location at the LPG user site, showing the areas of responsibilities and the physical location of points of interface;*
- *A clear account of the responsibilities and accountabilities of each party which includes reference to the relevant statutory provisions which must be met (3.3.7). [ICL/09728]*

This appears to be a good practice recommendation - on the lines of the 'safety dossier' proposed above (paragraph 8.2). HSE's comments on that would apply here.

3. *The UKLPG (or an equivalent body) should prepare guidance on the general recommended practice for its members with respect to ownership, the division of responsibilities and what duties that places on parties (3.3.9). [ICL/09728]*

While UKLPG can give their members advice on good operational practice, HSE would otherwise be better placed to provide guidance. As noted in the oversight submission HSE has committed to considering what guidance it can usefully provide on responsibilities.

4. *The LPG user (and if relevant the land owner/managing operator) should be required to retain relevant up-to-date information on its LPG system. It should include, but not be limited to:*
- *Design and installation details, simplified as is necessary, with suitable drawings and plans;*
 - *Details of the safe operating envelope for the LPG system;*
 - *A summary of the engineering safeguards designed to prevent unwanted events;*

- *LPG pipe entries into buildings are above ground and fitted with an ECV;*
- *LPG pipework is not routed through unventilated spaces;*
- *Where this is not feasible, then acceptable alternatives are provided which must be verified by an ICP (5.3.1).*

Please see paragraphs 36 - 43 of HSE's oversight submission for the approach preferred by HSE. Any change in the physical requirements of LPG facilities must be evidence based, must be costed and must be proportionate. Whilst HSE will continue to consider these parameters in the work it is engaged in with the industry some consideration needs to be given as to how to encourage all duty holders to fulfil their responsibilities under the existing legislation. [ICL/SO922 - SO924]

9. *UKLPG prepares practical advice for industrial/commercial LPG users on how to fulfil their statutory duties, particularly under DSEAR. This should be done in consultation with HSE (5.3.2).* [ICL/O4445 - O4472]

HSE's oversight submission suggests that HSE should lead on the production of any guidance in this area to ensure the proportionality of advice and the appropriate allocation of responsibilities. [ICL/SO914 - SO924]

10. *A process is put in place that defines, for each LPG user site, whether:*
- *HSE inspectors or LA enforcement officers are responsible for general inspection and enforcement; and*
 - *HSE inspectors or LA Building Control are responsible for oversight of the building/structural safety to ensure the building is suitable to meet the LPG risks (5.3.3).* [ICL/O4729]

The first recommendation seems unnecessary. The Health and Safety (Enforcing Authority) Regulations 1989 (as amended) demarcates HSE/LAs and the Health and Safety (Enforcing Authority for Railways and other Guided Transport Systems) Regulations 2006 (as amended) specify whether HSE or LAs (or the Office of Rail Regulation) is responsible for health and safety enforcement. As noted above, HSE believes that structural safety is first and foremost the responsibility of building control. [ICL/O4601 - O4617] [ICL/O5976 - O5996]

11. The LPG supplier should be obliged to provide the LPG user with a summary of its asset register, critical safety features, examinations, inspections and risk assessment for its equipment on the LPG user's site (5.3.4). [ICL/09729]

HSE is not clear how this recommendation is intended to achieve greater safety in the user's practice or use of such equipment in practice.

12. LPG users should be obliged to compile a "Safety Dossier" for their LPG system (5.3.5). [ICL/09729]

Please see comments above (paragraph 8.2).

13. Guidance and a practical template for a "Safety Dossier" should be developed by UKLPG (with its members) and in full consultation with the HSE (5.3.6). [ICL/09729]

Please see comments above (paragraphs 8.2 and A7).

14. The Inquiry considers as appropriate:

- *Improving the ongoing communication from the LPG supplier to the LPG user of generic type material relating to the safe use of LPG, LPG user's legal duties and more detailed legal guidance on control and mitigatory measures;*
- *The formation of a LPG suppliers and users forum (or similar) to provide a mechanism of sharing knowledge (6.4.1). [ICL/09730]*

HSE agrees this would be worth considering. There is a similar body covering bodies with an interest in the supply and use of gas in the domestic market. However, some thought would need to be given to what such a body could achieve given the disparate nature of commercial users of LPG.

15. HSE (or whoever is responsible) should publish more authoritative and detailed guidance on assessing whether existing building/structural safety is adequate and commensurate with the workplace hazards and risks, such as the use of LPG; see also recommendation 10 (6.4.2). [ICL/09730]

As noted above, this is not a role for HSE rather for the Department of Communities and Local Government in England and the Directorate for the Built Environment in Scotland, if considered appropriate.

16. Appropriate mechanisms are put in place to collate the existing and future data on LPG incidents for the LPG supplier and LPG user to actively learn lessons from LPG failures and incidents, adverse trends can be identified and periodic safety bulletins circulated to relevant parties as required (6.4.4). [ICL/09730]

Please see comments on paragraph 8.5 above.

17. An appropriate mechanisms be put in place to establish, for industrial and commercial categories of bulk LPG sites (and any other categories or sub-categories deemed useful by the Inquiry) key statistics to assist in assessing the overall risk and monitoring progress of implementation of the Inquiry's recommendations (6.4.5). [ICL/09730]

Again, in HSE's view, the key issue to address is replacement of unprotected metallic pipework. In the replacement of such pipes, regard must be had as to how progress is monitored, measured and reported.

18. During the transition phase, implement a basic risk ranking method to prioritise the LPG user sites, particularly with buried metallic pipework, which are deemed especially "high risk" (6.4.6). [ICL/09730]

HSE agrees with this. UKLPG already have a risk assessment matrix and HSE is committed to developing an action plan with industry where the method will need to be agreed.

19. The Inquiry considers a "registration scheme" be introduced by LPG suppliers, whereby bulk LPG could only be supplied to LPG user sites by "registered" suppliers (7.2.4). [ICL/09730]

HSE does not believe this is needed or proportionate. Such a scheme might also be viewed as a barrier to entering the market.

20. The Inquiry considers whether legislation is introduced whereby it would be a criminal offence to supply or use an LPG system which did not have an up-to-date verification certificate (7.2.4). [ICL/09730]

As noted above, this would need careful consideration and full impact assessment. The aim remains that of achieving safe installations.

21. The Inquiry considers assigning target timescales for the implementation of its recommendations, together with the body responsible for its implementation and, where necessary, the body who should monitor progress of its implementation (7.1.4). [ICL/09731]

HSE considers this to be a sensible proposal.

Health and Safety Executive
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