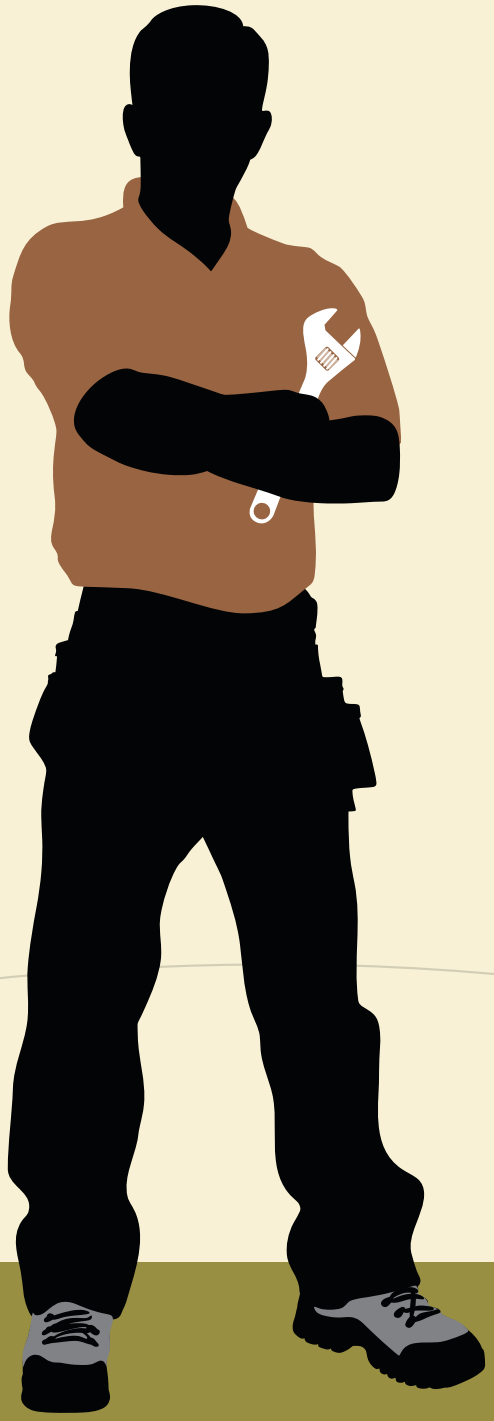

GAS COMPETENCE REVIEW

2011/12

GAS safe® REGISTER

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1. Executive Summary

Context

This review into issues surrounding competence as it relates to gas safety presented an opportunity to gather views and feedback from a wide range of industry stakeholders including Gas Safe registered businesses and engineers, training providers, manufacturers, charities and other stakeholders.

It took place in the broader context of evaluation and improvement which began in 1996 with the Touche Ross report, continued with the subsequent HSE review in 2000 and the Frontline Review of Domestic Gas Safety in 2006.

These reviews, and other changes in the industry, helped to bring about a number of changes designed to bring improvements to the arrangements and processes surrounding gas competence, including industry control of the ACS and the creation of a more formalised contract for the operator of the registration scheme for those working with gas under the Gas Safety (Installation and Use) Regulations 1998 which, in turn, led to the creation of the Gas Safe Register.

Methodology

The working methodology for this report was one of consultation at every stage – from identifying the key areas for discussion to playing back of results of the broader survey. This approach was adopted to ensure all participants felt that their views would be recorded and given fair consideration.

The topic areas for discussion were framed by the contributions of participants, within the agreed scope of the overall review. This approach meant that some potential and anticipated areas for discussion, such as a complete replacement of the existing competence arrangements, were rejected or not pursued early in the process.

Current measures of competence

As part of the discussions around current measures of competence participants were asked to assess the current definition of competence as used in the Industry Code of Practice (CoP20). The majority of respondents (92%) broadly agreed with the definition, albeit identifying some potential updates and clarification of language.

Many respondents noted that experience was a central part of competence.

Having established broad agreement on the definition of competence, participants confirmed that individual certification remains the most appropriate model in most cases. They were then asked to examine the current available measures for demonstrating competence including:

- The Nationally Accredited Certification Scheme for Individual Gas fitting Operatives (ACS)
- The National/Scottish Vocational Qualifications (N/SVQ) and Qualification Credit Framework (QCF)
- Managed Learning Programmes and short 'fast' courses
- Gas work experience

There was also acknowledgement of the role potentially played by Group Certification Schemes as alternative option, mainly for larger employers. This option is being prepared by EU Skills for launch in mid-2012.

Participants quickly identified that appropriate arrangement for competence may vary substantially depending on the level of experience and knowledge held by an individual and whether they were seeking to enter the industry or maintain a position within it. This resulted in a stepped approach which separately examined three main areas:

- Achieving Competence,
- Maintaining Competence, and;
- Applying Competence.

Achieving Competence

Just over half of respondents indicated satisfaction with the options available to those wishing to enter the industry, although the levels were lower when discussing options for new entrants i.e. those without previous experience.

Respondents assessed the effectiveness of the routes into the industry currently on offer. Overall the routes seen to be the most effective – traditional or modern apprenticeships, time spent working with a business – were those which offered opportunities to build up experience over a period of time. The routes seen to be less effective were those with smaller practical components or offered as a short 'fast' course.

For the most part these responses mirror the routes the participants themselves took when entering the industry: almost 50% undertook a traditional apprenticeship.

Ensuring that suitable routes into the industry are available was seen as one key element, another was ensuring that people were encouraged to enter. A number of participants cited concerns over the availability of funding to those registered business wishing to take on trainees and the perceived bureaucracy and legal liabilities surrounding taking on a trainee. There was concerns about how funding which is available is allocated, with a perception that the majority, if not all funding, goes direct to colleges and little coming back to the business.

Amongst Gas Safe registered businesses there is limited understanding about how or where to access the funding which is available to support those taking on trainees.

These were seen to feed into a broader problem for trainees in gaining adequate experience to operate safely although there was also a strongly expressed view that training, delivered face to face and/or at a training centre is particularly valuable for those at this stage of their development.

Participants were presented with the opportunity to discuss the different classifications of entrants to the industry:

> **Category 1** – experienced qualified/certificated. Often used by those looking to renew or extend existing or expired gas qualifications.
>
> **Category 2** – individuals holding some qualifications relevant to or associated with gas work. Supported with evidence of 'hands on' gas work undertaken under supervision.
>
> **Category 3** – individuals who are new to the industry and do not currently hold relevant qualifications or experience.

Categories 1 and 2 will often demonstrate competence through ACS assessment at recognised training centres, in some cases with the use of supporting evidence. Category 3 candidates are directed to undertake relevant 'off the job' training and gain relevant 'on the job' experience prior to presenting themselves for ACS assessment.

In most cases the routes offered are either Managed Learning Programmes or Short 'Fast' Track Courses which offer the training component and sometimes manage or facilitate placement with registered businesses in order to build a portfolio. Some candidates were left to independently find work with established engineers/businesses so as to acquire the necessary gas work experience; which many found extremely difficult or simply unachievable.

Many participants expressed concerns about the suitability and robustness of some of these types of course, particularly the 'short course', believing that it is not possible for candidates to acquire sufficient experience to work safely in such a short duration.

It was also recognised that while for many an apprenticeship remained the preferred route for new entrants that it was not always available or viable, either because of difficulties in finding funding or because the entrant was not the typical apprentice e.g. 16-18 year old.

It is notable that a number of respondents still view ACS as a 'training course to get gas qualified' rather than as a measurement of competence achieved through training and experience.

1. Executive Summary cont.

A number of respondents noted that, while the ultimate measure of competence through ACS was generally seen to be consistent, there was considerable variability in the style, content and quality of how training was delivered. There was also concern about how candidate portfolios are monitored and assessed as there was (anecdotal) evidence that the current system is being abused or that portfolios are rarely checked.

Points for consideration

- Communication and education
  - Increase industry awareness and understanding of the current competence arrangements, including the make-up and responsibilities of the SSB
  - Develop improved guidance to industry on the funding arrangements already in place surrounding new entrants to the industry and how to access them
  - Encourage greater input and industry participation to SSB and other discussion forums thereby ensuring the development of better and more appropriate proposals
- Refinements, updates and adjustments to systems, processes and definitions
  - Develop other options for assessing competence which would be equivalent to ACS but which have scope for more flexible delivery
  - Investigate options around a move away from a culture of 'open book exams' with 100% pass mark, even if only for some core elements
  - Update and refresh the definition of competence to remove perceived ambiguity
  - Update and refresh CoP20 1988 to reflect updates in industry practices and technology
  - Address the need for new entrants to build up direct hands-on alongside theoretical training through the development of a national framework encompassing candidates, training providers and Gas Safe registered businesses
- Policing and monitoring
  - Review minimum level of gas work training and experience needed to be deemed competent, regardless of route taken into industry
  - Increase monitoring and accreditation checking of the delivery of training and the validity of portfolios, with the development of greater sanctions against those bodies delivering training below the agreed standards

Maintaining competence

Once an engineer has demonstrated competence through ACS, regardless of the route taken, they then enter a five-year cycle of reassessment. In addition to the core elements of their qualification they may hold additional competencies to work on specific types of appliance or installation.

An up to date 'core qualification' for domestic, non-domestic or LPG is a pre-requisite for Gas Safe registration.

Overall, more respondents are satisfied with the current options than not, although a significant proportion describe themselves as neither satisfied nor dissatisfied. This is true across domestic, non-domestic and LPG sectors.

The majority of respondents also indicated satisfaction with the elements which make up both the core and additional elements of the assessments.

For those who did not indicate satisfaction a number of key topics emerged, including questioning the requirement for a full reassessment every five years. Within the group questioning the need for full reassessment there was desire for more frequent periodic updates, particularly on areas such as changes in legislation.

There remains some cynicism about the motives surrounding maintenance of the current five-year cycle in some quarters with concerns about the number of elements for assessment and the need for five-yearly full reassessment being driven by industry commercial interests rather than gas safety. Unsurprisingly, this view was not shared by respondents from the training/assessment centres.

More widely noted was the 'one size fits all' nature of the current structures – both in terms of the content of reassessment and the fixed five-year interval.

Respondents were asked about the different (perceived) training and assessment needs for engineers at the beginning of their careers, those with some or many years experience and those approaching retirement.

The answers showed a perceived need for different approaches for those different career stages with more frequent assessment for those with less experience and the intervals extending over time. For those approaching retirement there were calls to drop the complete reassessment altogether.

At various stages there were calls for annual assessment, three year intervals, dropping reassessment altogether, formal and informal continuous professional development (CPD) schemes, more ongoing inspection to verify competence and various combinations of the above.

A number of respondents cited the cost (upfront as well as the opportunity cost of missing business while taking assessments) of the current arrangements as disproportionate and a disincentive, particularly for those who felt that much of the content was covering areas they already knew.

The variety of channels available to engineers to keep themselves up to date with industry changes, including the Gas Safe official publication Registered Gas Engineer, Technical Bulletins, other trade publications and sessions run by manufacturers were cited. However, a significant number of respondents noted that the training many engineers take before ACS reassessment was a useful opportunity to acquire or update knowledge, although there was also some concern that some engineers use this as their only opportunity to update their knowledge. For those in that situation, not keeping their knowledge up to date in other ways, the five-year cycle is seen as too long.

Overall, although many were broadly satisfied with the arrangements in the absence of any alternatives, there were calls for more flexibility in the system to take into account accrued experience and a desire to see more focus on updating engineers of the areas of change.

- Points for consideration
  - There is no evidence of widespread dissatisfaction with the essential principle of reassessing competence at intervals, although there remain differing views on how this should be done, the correct intervals and whether this should be the same for all engineers.
  - 'One size does not fit all' in terms of assessment format and frequency
  - There is desire for more flexibility in the current system with CPD in some form, although this would require the development and maintenance of systems to record and verify the individual elements as they are built up. It would also require some form of monitoring and validation of the CPD courses, particularly if they are delivered outside the existing training/assessment framework e.g. by manufacturers
  - Cost, is still seen as an issue, although many respondents bundle all of the associated costs including training, time out from work etc. into one perceived 'ACS cost'. Clearer communication on what each part of the system does may increase understanding and satisfaction as would greater focus on the value (financial and non-financial) many engineers find in the system

1. Executive Summary cont.

Applying Competence

It was recognised by participants that ensuring that competence, however it has been acquired or maintained, is applied correctly, consistently and safely when undertaking gas work.

Understanding of the application of competence was also seen as closely linked to the systems and processes in place to monitor, record and, where necessary, police gas work. The reporting of instances of unsafe gas work, particularly through RIDDOR (F2508G2) was a central point for discussion.

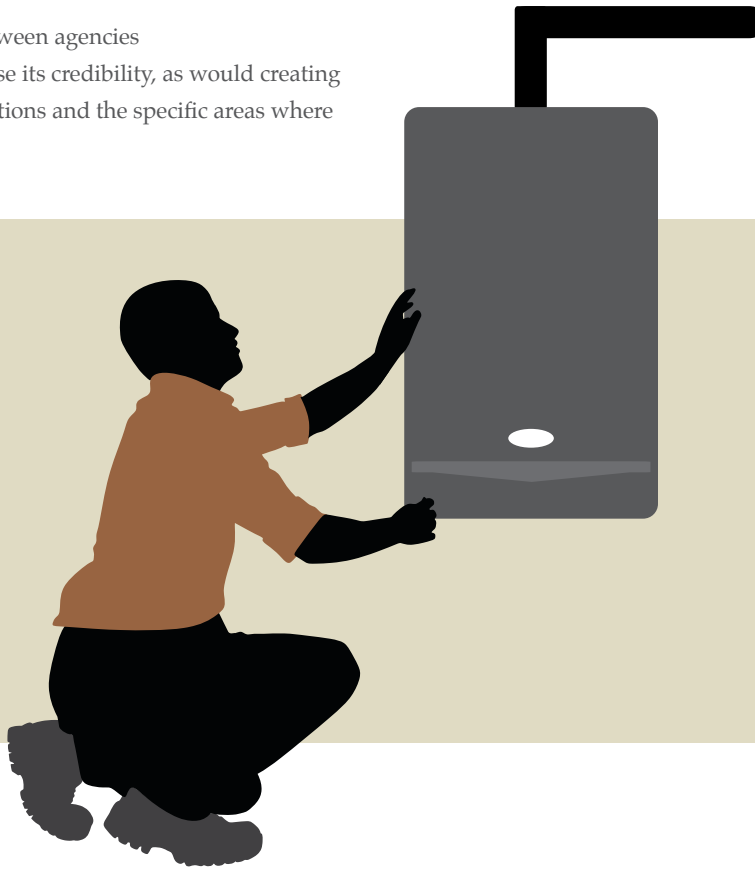
Just over two thirds of respondents to the survey indicated that they had encountered examples of unsafe gas work – although many attendees at the feedback workshops thought this figure was surprisingly low. The majority of respondents did say they would report unsafe gas work, although there was some confusion about who they would contact and limited understanding of what happens to that information when it is received.

Over two-thirds of respondents noted that they had never received feedback on a RIDDOR report and this was seen as a disincentive to report again in future.

Overall the concerns expressed around RIDDOR as a tool to report unsafe gas work (and therefore areas where competence has not been applied) related to bureaucracy, feedback and a lack of visible action.

Aside from the reporting of work engineers were also asked if they thought competence was always applied by registered engineers when undertaking gas work – only around a third believed that was always the case. Respondents also believed that the engineer's level of experience was the major driver in whether they applied competence.

- Points for consideration
  - Simplify and clarify the arrangements for reporting unsafe gas work, and build in a greater level of feedback to those making the report. More focus on RIDDOR (and other associated reporting) during ACS is seen as a potential mechanism
  - There should be better sharing of reporting information between agencies
  - Publicising statistics on RIDDOR reporting is seen to increase its credibility, as would creating stronger and more explicit links between reports of prosecutions and the specific areas where competence was not applied.



2. Overview Timeline of Gas Competence Review

Date	Gas Competence Review	Stage
Oct 10 Oct - Nov 10	**HSE Contract for Registration Body** Review current competence regime i.e. Nationally Accredited Certification Scheme for Individual Gas Fitting Operatives (ACS). **General press release and communication to industry** of CR through various media outlets e.g. Registered Gas Engineer magazine	Planning & Preparation
Nov 10 - Jan 11 Jan - Feb 11	**Initial Workshops (19)** held around the country to gauge view of industry. (Invites sent out to 65,000 registered businesses & 400 stakeholders; 344 attended) Views analysed and **survey questionnaire** developed **On-line survey** available for all of industry to complete and comment (advertised through various media outlets)	Consultation, Exploration & Challenging
Mar - May 11 May - Jun 11 Jul - Sep 11	**6580 completed survey responses** Data results analysed and produced into a presentation **Validation Workshops (13)** held around the country to replay results of industry on-line survey and to receive final feedback. (Invites sent out to 65,000 registered businesses & 400 stakeholders; 207 attended)	Complete Analysis & Formulate Proposals
Oct - Dec 11	**Formulate final industry proposals**	Report Writing & Present Report

3. Background and Context

3.1 Aim

The review of domestic gas safety undertaken by the Health and Safety Executive (HSE) in Great Britain (GB) in 2006 (Frontline – 'Review of Domestic Gas Safety' 2006) recognised the ongoing desire within the gas industry to address issues relating to gas safety competence and to monitor the effectiveness of the current Nationally Accredited Certification Scheme for Individual Gas Fitting Operatives (ACS) system and other assessments of competence such as the Scottish/National Vocational Qualifications (S/NVQs).

Note 1

All references to HSE in this report refer to the HSE in GB.

In the period since the *Touche Ross Report (1996)*, the subsequent *HSE review (2000)* and the *Frontline Review of Domestic Gas Safety (2006)*, the HSE has implemented significant change to the structures and processes in place to support those organisations tasked with delivering improvements in gas safety and the enforcement of the gas safety regulations in GB.

The changes arising from these reviews include the remodelling of the ACS system and in 2009, the change to provide a formal contract to operate the mandatory registration scheme for those working on gas as defined in the Gas Safety (Installation and Use) Regulations 1998 (GSIUR) as applied to GB.

Note 2

All references to GSIUR 1998 in this review refer to those Regulations applicable to GB and the published Approved Code of Practice (ACoP) (L56) published by HSE.

As part of the procurement process for establishing a new gas registration scheme HSE stipulated within the contract, that the successful party would undertake a review of the current gas safety competence requirements for registration. The focus of the review is solely on gas safety competence in relation to registration requirements and its impact on the delivery of safe gas work and consumer gas safety.

The purpose of the review and of this report is to gather viewpoints, perceptions and understandings from all interested parties across the industry in GB. Inevitably, with such a diverse group, there will be differing levels of knowledge about specific regulations, and supporting data.

3.2 Objectives

In GB, competence of gas engineers in all sectors* is currently determined primarily through the ACS scheme, with a set of core gas safety assessments supplemented by appliance/gas fitting specific assessments. Accreditation of the ACS framework is underpinned by BS EN ISO/IEC 17024: 2003, which specifies requirements for a body certifying persons against specific requirements, including the development and maintenance of a certification scheme for persons. Other routes to competence via training and assessment e.g. limited scope, managed learning programmes (MLP), in-house solutions, continued professional development (CPD) etc, are also examined in this context.

*The term 'Sector' in this context is in relation to:

1. **Gas types** – Natural gas and Liquefied Petroleum Gas (LPG) – Competence to undertake 'Gas Work' (as defined in GSIUR) is assessed separately for these gases under the existing ACS arrangements.
2. **Types of premises** – Domestic and Commercial (non-domestic) – Competence to undertake 'Gas Work' (as defined in GSIUR) in Domestic and Commercial (non-domestic) premises is assessed separately for these types of premises under the ACS arrangements.

Note 3

For further guidance, reference should be made to GSIUR ACoP (L56).

This review provides an opportunity to solicit feedback from a wide variety of stakeholders, consumers and other interested parties to establish viewpoints on the relevance and effectiveness of the current requirements. This feedback will provide HSE and the gas industry with areas for consideration for changes to the current competence regime.

Other industry stakeholders, such as charities, campaigning groups, manufacturers and education sector employers continue to take an interest in issues relating to the competence of those who carry out gas work and their views can have an influence on policy makers.

The review will:

- Investigate and record the current prerequisites for gaining a gas safety competence award and assess their ongoing suitability
- Engage with and consult (using a variety of tools including surveys, workshops and face-to-face discussion) those involved in, or affected by, the current arrangements to assist in identifying best practice and proposals for changes, including how any changes may impact upon the industry
- Review how the current arrangements surrounding competence contribute to gas safety and assess if and how any changes may affect this e.g. create additional benefits
- Present practical options for consideration along with an analysis of the benefits and implications of each option

4. Introduction and Background

4.1 Regulation

In order to work on downstream gas, any business or individual must comply with GSIUR, which sets the requirements for competence and registration for all gas work (installation, maintenance, repair, servicing etc.) across natural gas, LPG and some commercial installations covered by the scope of the regulations. Regulation (3) 'Qualification and Supervision' of GSIUR requires that any business carrying out gas work must be competent to do so and must be registered as a class of person approved by the HSE (i.e. with Gas Safe Register).

Extract from the GSIUR 1998:

'PART B'

GAS FITTINGS - GENERAL PROVISIONS

Regulation 3 - Qualification and supervision

(1) No person shall carry out any work in relation to a gas fitting or gas storage vessel unless he is competent to do so.

(2) The employer of any person carrying out such work for that employer, every other employer and self-employed person who has control to any extent of such work and every employer and self-employed person who has required such work to be carried out at any place of work under his control shall ensure that paragraph (1) above is complied with in relation to such work.

(3) Without prejudice to the generality of paragraphs (1) and (2) above and subject to paragraph (4) below, no employer shall allow any of his employees to carry out any work in relation to a gas fitting or service pipework and no self-employed person shall carry out any such work, unless the employer or self-employed person, as the case may be, is a member of a class of persons approved for the time being by the Health and Safety Executive for the purposes of this paragraph.'

(4) The requirements of paragraph (3) above shall not apply in respect of -

(a) the replacement of a hose or regulator on a portable or mobile space heater; or

(b) the replacement of a hose connecting a re-fillable cylinder to installation pipework.

At no point during the competence review research or during the preparatory work in identifying areas for research and discussion, did respondents identify any fundamental change in the overarching current legislation in relation to the GSIUR 1998.

Other regulatory areas discussed were the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR), which is covered in Section *8 Applying Competence*. Also proposed improvements to the HSE publication *'Standards of training in safe gas installation'* ACoP (CoP20) 1988 to better reflect current practices (e.g. CoP20, still reflects the '1994 gas safety regulations' and the '16 Elements of standards of training in safe gas installation' now superseded by the current ACS arrangements).

4.2 Competence definition

The Competence Review needed to establish if the current industry definition of competence is still applicable to the sectors (Domestic, Commercial and LPG) of the gas industry.

The current definition from CoP20 was asked of survey respondents:

> ***'Competence in gas installation requires enough knowledge, practical skill and experience to carry out the job in hand safely, with due regards to good working practice. The installation should also be left in a safe condition for use. Knowledge must be kept up to date with changes in law, technology and safe working practice.'***

(220 responses were received – see *Section 6.1 - Setting the scene for establishing gas competence*).

4.3 Gas Industry Competence Timeline

Year	Major points within the gas industry
1968	Major gas explosion at Rowan Point (block of flats), causing four deaths.
1970 - 1991	CORGI (The Confederation for the Registration of Gas Installers) voluntary registration scheme.
1972	Gas Safety Regulations.
1976	Gas Safety (Rights of Entry) Regulations.
1988	HSE - Standards of Training in Safe Gas Installation (ACoP) (CoP20). Introduced the present definition of competence used in the gas industry. Also introduced 16 elements to be used as guidance for standard of training and assessment used by the gas industry and also a 5 year rolling programme of assessment of elements. Known as 'ACoP' training.
1991 - 2009	CORGI (Council for Registered Gas Installers) mandatory registration scheme supported by regulation 3 (3) of the Gas Safety (Installation and Use) Regulations 1994.
1994	Gas Safety (Installation and Use) Regulations 1994
1996	Gas Safety (Right of Entry) Regulations 1996
1996	Gas Safety (Installation and Use) (Amendment) Regulations 1996
1998	Gas Safety (Installation and Use) Regulations 1998
1998	Introduction of the Nationally Accredited Certification Scheme for Individual Gas Fitting Operatives (ACS). This assessment now covers Engineers for 5 years.
2000	HSE Fundamental Review of Gas Safety
2006	HSE Review of Domestic Gas Safety Regulation
2009 - present	New operator appointed by HSE to operate the registration scheme for competent gas operatives. The brand Gas Safe Register developed and launched.

4.4 Current Measurement of Competence

There is widespread consensus within industry that individual certification is the most appropriate way of measuring competence via ACS (i.e. BS EN ISO/IEC 17024; 2003).

4.4.1 ACS

In 1998, ACS was introduced to increase consumer and gas industry confidence in the competence of gas operatives to work safely. ACS replaced the previous ACoP (CoP20) scheme. Currently, individuals are required to demonstrate competence, in various assessment criteria every five years, which leads to a certificate of competence being issued by a Certification Body (CB) that has been assessed and accredited to BS EN ISO/IEC 17024; 2003. ACS is designed to enable experienced operatives to demonstrate their gas safety competence and to gain a recognised qualification that is valid for a further five years. ACS is not an industry entry stand-alone qualification.

4.4.2 Alternative option to ACS for employers

Although no alternative arrangements were suggested throughout the competence review process, the Sector Skills Council (SSC) for the gas, power, waste management and water industries - Energy & Utility Skills (EU Skills) are developing an alternative approach for employers in how they can re-assess their engineer's existing gas safety competence (not new entrants) in-house, via a validated external inspection body.

EU Skills proposal to the current ACS scheme is via a Group Certification Scheme (GCS) and is being developed in preparation for launch in mid-2012 - see direct quotes below (see *Appendix A - E&U Skill's 'Group Certification Scheme – Operations Document'*):

> ***'The GCS will provide an alternative option for registered businesses to consider and will enable them to satisfy the re-assessment requirements using their own internal quality management processes instead of ACS. This approach offers a radically different way for employers to demonstrate safety competence of its registered engineers as it moves from a purely individual competence assessment to a more holistic corporate competency approach.'***
>
> ***....GCS is a company based scheme delivered internally, with external inspection....***
>
> ***...The business will be inspected regularly by a United Kingdom Accreditation Service (UKAS) accredited Inspection Body (IB) to confirm that the systems and processes operated by the business satisfy the GCS requirements. The IB will deliver a report to the business and, providing that the GCS requirements have been satisfied and all employees having been assessed as competent and within scope of the businesses' GCS, employees may be re-registered on expiry of their five year registration.'***
>
> ***Note***
> ***'Organisations intending to become an Inspection Body for GCS will need to meet the UKAS requirements for such organisations, and operate to the GCS Inspection Specification that will be made available once the GCS is launched by EU Skills.'***

4.4.3 NVQ-S/NVQ to QCF

Previous arrangements for entrants (historically and typically for those between the age of 18-25) were qualifications such as National Vocational Qualifications and Scottish/National Vocational Qualifications (S/NVQ). As of September 2011, the Qualification Credit Framework (QCF) is replacing NVQ for new gas qualifications (see *Section 4.9 – Broader competence arrangements*) and (*Appendix B - Qualification Credit Framework [QCF] – Specific Gas Utilisation Requirements*).

4.4.4 Managed Learning Programs and Short 'Fast Track' Courses

For mature candidates aged 25 and over wishing to enter the gas industry, there are several entry routes into the industry (see *Section 6.2 - Options and routes into the gas industry*) such as Managed Learning Programs (MLP) (see *6.6.1 - Managed Learning Program summary*) and other 'Short/Fast Track Courses' (see *Section 6.6.2 - Short/fast track course summary*). These courses are primarily aimed at new mature entrants into the industry that do not take formal qualifications (S/NVQ or QCF).

The three categories of new entrants are explained later in this report (see *Section 6.6 - Categories of new entrants; prerequisites for gaining gas safety competence; [Categories, 1, 2 & 3]*).

4.4.5 Gas work experience

There are seven Certification Bodies that operate MLP (see *Section 4.8.6 - Awarding & Certification Bodies*) and all work to industry issued guidance (see *Section 6.7 - Policing and monitoring new entrants*).

As the current competence definition (in *Section 4.2 – Competence definition*) states, gas work 'experience' is seen as one of the three constituent parts of competence; this element is the one area that continues to attract significant comment and debate.

4.5 Funding

For many years, the gas industry has expressed the need for a review of the current gas safety competence regime (see *Section 6.5 - Funding for new entrants*). Cost has always been quoted as a major concern across various industry sectors, especially the cost of ACS assessments and re-assessment and the time taken off work (off-site) for the businesses/individual. Ongoing comment from sectors of industry of the perceived 'ease of entry into the industry'; specifically through short 'fast track' courses are viewed as detrimental to the professionalism and competence of new entrants.

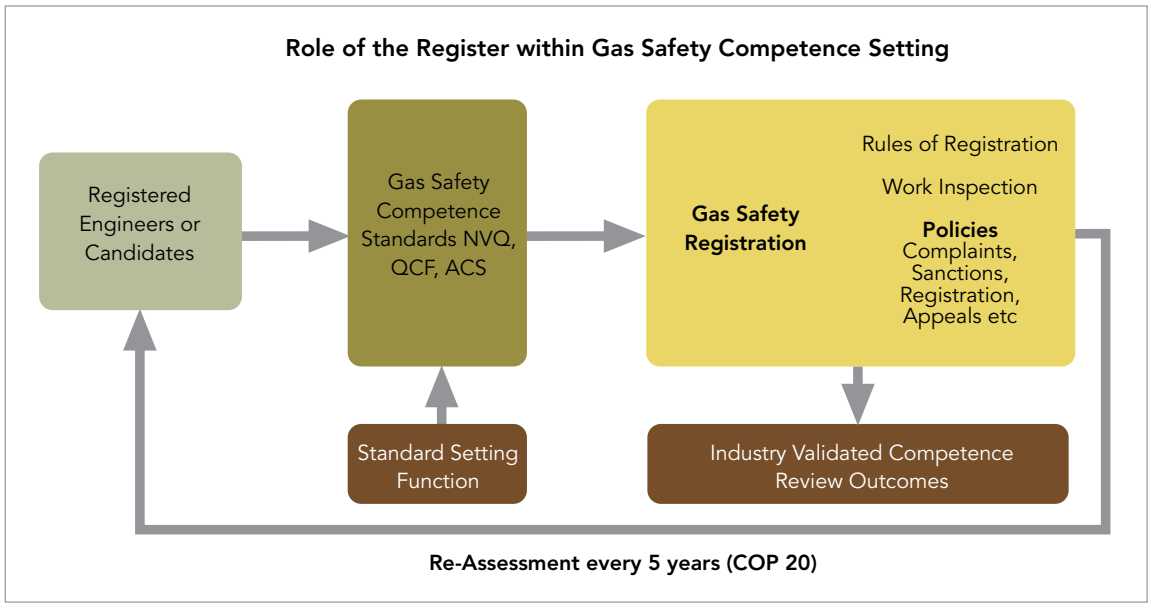
4.6 The current competence environment

The 2010/12 Competence Review, coordinated by Gas Safe Register for HSE, recognises gas industry changes since the introduction of the new registration body provider on 1st April 2009 (see *Diagram A - Competence standards and registration division*).

Under the previous registration body (CORGI) prior to April 2009, gas competence standards development, registration and inspection duties were carried out by the same body. Industry and HSE identified that this was not appropriate and as part of the new contract for the registration body; these duties have been separated. During both the initial and the validation workshops, it became clear that many registered businesses and engineers are not aware of this fundamental change.

Following the *'Review of Domestic Gas Safety (2006)'* HSE has already implemented change to the structures concerning gas competence standards with the introduction of the ACS. Under the current arrangements the responsibility for developing and setting gas safety competence standards sits with EU Skills and is delivered through the industry consultative structure they have put in place. This is more generally referred to as the Standards Setting Body for gas competence and has been in existence since 1st April 2009.

Diagram A : Competence standards and registration division



EU Skills is the Sector Skills Council (SCC) for the gas (power, waste management and water) industry. They are licensed by the Government and work under the UK Commission for Employment and Skills. They cover the whole onshore gas industry; transmission and distribution and utilisation (with the outlet of the gas emergency control valve (ECV) at the premises being deemed the end of the Network and the point of change from transmission and distribution ('upstream') to utilisation ('downstream')).

Gas Safe Register deals solely with the registration, inspection and complaint investigations concerning registered businesses and investigations involving unregistered/illegal gas workers in the 'downstream' sector, i.e. downstream of the ECV.

4.7 Current industry qualifications

EU Skills are a central part of the Government's skills strategy; this strategy is based on the premis that the employers voice should be significant in the provision of training and skills development. EU Skills help employers identify their skill-needs and offer effective solutions and funding opportunities. The gas industry's ageing workforce, and declining numbers of young people entering the industry is a major challenge for EU Skills both now and looking to the future.

EU Skills manage the industry competence setting function with regard to establishing and maintaining competence standards ensuring safe gas work, and providing clear routes to registration with Gas Safe Register.

Legal responsibility for the measurement of gas safety competence sits within a number of parties:

- The **Standard Setting Body** (see *Section 4.8 - Standards Setting Body for gas safety competence*) set the gas safety criteria to be assessed, which are determined by gas industry representatives and ratified by a Management Board through a due process facilitated by EU Skills.
- The **Awarding/Certification Body**; assessments are delivered through centres accredited by Awarding/Certificating Bodies operating under either UKAS or OFQUAL accreditation.
- **Gas Safe Register**; holds a record of all Engineers who have demonstrated competence via a recognised assessment (every five years) and work within scope of the GSIUR.
- The **Employer**; has the responsibility to ensure that a person carrying out work on their behalf is competent to do so.
- The **Employee**; has the responsibility to apply their gas safety knowledge in practice.

4.8 Standards Setting Body (SSB) for gas safety competence

A new governance, engagement and standard production structure has been established (see *Diagram B - Outline Structure of Standard Setting Body [SSB] for Gas Safe Registration*) under the overall umbrella of EU Skills. The new structure ensures that industry and employers have a greater involvement in the competence requirement for registration, impact analysis on risk, costs and benefits via a consultation process. The SSB is operated via several levels and has representatives form all industry parties. The structure is as follows:

I. Strategic Management Board (SMB)

II. Standards Consultation Forum (SCF)

III. Standards Development Unit (SDU)

IV. Gas Industry Liaison Group (GILG) & other representative bodies

4.8.1 Strategic Management Board (SMB)

The purpose of the SMB is to ensure that the production, maintenance and implementation of gas competence criteria, and relevant assessments, ensure consumer safety, and are fully aligned with the mandatory requirements of the GSIUR 1998.

The SMB's responsibilities include the legal governance of the standards setting body, ensuring any due processes are complied with. They also have responsibility for ratifying suggested changes to ACS assessments made by the SCF after consultation, when necessary, with industry. Gas Safe Register is part of the SMB and brings a consumer facing perspective. UKAS also has an observation position on this board along with HSE and HSE NI.

The SMB must fairly and equitably represent the interests of all groups concerned with gas safety without any one interest dominating. The SMB will also receive and validate proposals for 'routes to registration' with Gas Safe Register from the SCF.

4.8.2 Standards Consultation Forum (SCF)

The SCF is made up of representatives of the gas industry including large, medium and small businesses, UKLPG (the trade association for the LPG industry), catering sector, commercial laundry sector, The Institution of Gas Engineers and Managers (IGEM), The Association of Plumbing and Heating Contractors (APHC), The Heating and Hotwater Industry Council (HHIC),

Awarding Bodies, Gas supply networks owners, The Meter Asset Manager's Code of Practice (MAMCoP), ICOM Energy Association, British Gas, and other specialist groups, if necessary (see *Definitions of Industry Bodies in Appendices*). Gas Safe Register is part of the SCF and represents consumers.

The SCF provides a strategic input for emergent skills, resource and competence issues. They also consider proposals for alternative routes for registration, and other recommendations made by the SDU.

4.8.3 Standards Development Unit (SDU)

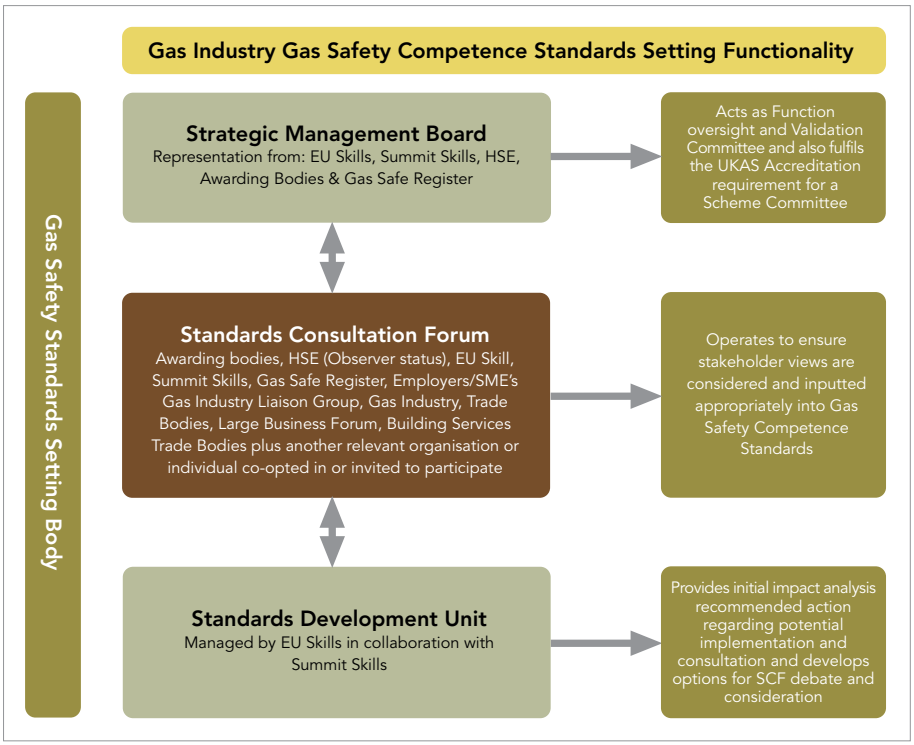
The SDU is represented by EU Skills staff only, with help and guidance from industry sectors as and when requested.

The SDU recognises any changes that are in scope of the ACS scheme, and amend / change existing ACS assessments and will create new assessments where required. Also working within the scope of an industry consultation, the SDU will decide if industry needs to be consulted regarding any changes, and prepare 'Option' documents. These are forwarded to relevant specialists within SCF allowing relevant industry consultation. Industry wide consultation on major changes will be via web based surveys and allow the wider industry (especially the self employed) input into the consultancy / decision making process.

4.8.4 Gas Industry Liaison Group (GILG)

The GILG is a sub group, with several members also represented on the SCF. The purpose of the group is to provide views following consultation to the SCF. The GILG also has the remit to discuss broader gas industry matters. The GILG is open to anyone who is impacted or affected by the current Standards Setting Body which leads to the setting of competence criteria. There is an independent chair and the secretariat function is provided by EU Skills and SummitSkills; the Sector Skills Council for the building services engineering sector (see *Appendix 3 - Definitions of Industry Bodies*).

Diagram B : Outline Structure of Standard Setting Body (SSB) for Gas Safe Registration



Overall feedback from those who attended the Competence Review workshops (Initial and Validation); there was limited understanding of which bodies had responsibility for which elements, or that there had been a change of structure as detailed above.

4.8.5 The Nationally Accredited Certification Scheme for Individual Gas Fitting Operatives (ACS) as certificated under the ISO (International Organisation for Standards) BS EN 17024 through UKAS

Note 4

ISO BS EN 17024:2003 specifies requirements for a body certifying persons against specific requirements, including the development and maintenance of a certification scheme for personnel.

Below is a summary of the main events of the ACS scheme (see Table A – ACS Timeline) since its inception as a recommendation following the 1996 Touché Ross Report into the previous ACoP scheme.

Table A ACS Timeline

Year	Main events of the ACS scheme
1996	Management review by Consultants (Touché Ross) of the ACoP scheme, HSE issued the registration body (CORGI) with a blueprint to develop a scheme to replace the ACoP with one that met the requirements of EN 45013. Timescale within 2 years.
1996	Registration Body set up industry consultative group the Joint Standards Body (JSB) made up of Training Providers, Certification Bodies, Trade Associations, Trade Unions, Registered Businesses, Appliance Manufacturers, Professional bodies, etc.
1997	1st Certification Body accredited by UKAS and 1st candidate assessed and certificated by Independent Gas Assessment Services (IGAS).
1998	ACS formally started with domestic natural gas assessments.
2000	7 Certification Bodies accredited by UKAS; both Commercial and LPG assessments began.
2001	Over 150 Assessment Centres approved by Certification Bodies and first meeting of the HSEs Operative Competence Working Group. HSE take on responsibility from registration body for ACS policy.
2002	Alignment process completed for S/NVQ candidates to be assessed to the competence standards of ACS.
2003	ACS domestic re-assessment criteria approved and changes made to the ACS Operational Requirements document. 1st five-year cycle of ACS completed with 105,606 operatives taking 489,995 assessments. ACS rules change to ensure only operatives with gas work experience access ACS assessments. ACS Certification Bodies begin to offer re-assessments to operatives seeking to renew existing ACS certificates. The duration of re-assessments designed to save approximately 50% of assessment time compared with Initial Assessment for a competent well prepared operative.
2004	Certification Bodies accredited by UKAS. With 230 Assessment Centres across GB.
2005	New constituted ACS Scheme Committee agreed; thus enables HSE to withdraw from providing Chairmanship and Secretariat services to the committee.
2009	Contract to run the Gas Operative Register transfers from CORGI to Gas Safe Register. EU Skills are given responsibility by HSE to manage the ACS competence scheme via the Standards Setting Body (see 4.8).
2010	ACS CPA1 Assessment becomes pre-requisite requirement for all engineers who undertook initial or re assessment for HTR1 & CEN1.
2011	ACS assessments CEN1 and WAT1 are withdrawn and replaced by assessment CEN/WAT. Ongoing development of ACS, including CPA1 will become part of the Domestic Core.

4.8.6 Awarding & Certification Bodies

The two Awarding Bodies (AB) and seven Certification Bodies (CB) (see *Appendix C - Accreditation Bodies (AB) and Certification Bodies list*) assess the competence of those wishing to work on gas fittings/appliances and provide evidence which is used by the registration body i.e. Gas Safe Register. The certificates/awards are validated through the established gas industry SSB which is managed and facilitated by EU Skills. Currently there are two AB; City & Guilds and EAL. There are seven CB; Blue Flame Certification, BPEC, ERS (European Registration Scheme for Personal Competence), Construction Skills, Logic Certification, NICEIC Certification, and UK Certification. All CB also offer a MLP course.

4.9 Broader competence arrangements

This review deals with gas safety areas only. However, within the gas industry, EU Skills work with employers to develop National Occupational Standards (NOS) which describe what employees should be able to do (performance), and what they should know (knowledge) to carry out their job.

NOS define the performance and knowledge required for that occupation. NOS package performance and knowledge together so they can be used to define the overall (whole job) competence required within that occupation. This defers in respect with the Competence Standards developed through the SSB also operated by EU Skills which is only concerned with matters of gas safety. EU Skills has set in place the NOS into a framework based on Government policy to develop modular (building blocks) qualifications; QCF providing a flexible system for employers to use (see *Appendix K - Downstream Gas Qualification Framework*). This has been in place since August 2011.

QCF has replaced S/NVQ awards. The aims and principles of the QCF include:

- Endorsed and supported by downstream employers, and representative groups (GILG, ARGI, etc)
- Ensure qualifications are fit for purpose across a range of learners abilities
- Incorporate and comply with statutory regulations
- Cover all downstream gas activities
- Ensure consistency where sector overlaps with other relevant Sector Skills organisations (i.e. Summit Skills plumbing and electrical awards)
- Identify the scope of LPG and industrial/commercial activities
- Incorporate relevant emerging technologies (e.g. Hydrogen as a fuel gas)
- Be aligned to matters of gas safety and applicable registration schemes
- Maximise funding availability

QCF recognises skills and qualifications by awarding credits for qualifications and units completed. Every unit and qualification will have a credit value (1 credit = 10 hours) and a range of 8 levels (Scotland has 12 levels)

- There are 3 types and sizes of qualifications (Awards 1-12 credits), (Certificates 13-36 credits) & (Diplomas 37- or more credits) In this framework you can have an award at level 1 or 8. This is because the Award, Certificate or Diploma represents the overall size of qualification not how difficult it is. GCSE grade A* - C are at level 2. GCE A grade are at level 3. PhD is at level 8.
- Awarding bodies, in contact with EU Skills, will determine joint responsibilities for developing units. Awarding Bodies will write units and undertake credit rating with input and expertise from industry employers.

Awarding Bodies will be able to offer the QCF, whereas only City & Guilds could offer S/NVQ in the past.

Note 5

*QCF is for **new** entrants into the industry. At this time, ACS remains the measure of ongoing competence for **existing competent engineers**.*

5. Research

5.1 Methodology

A central underpinning principle of the Competence Review 2010/12 was the importance of consultation and engagement with the gas industry and broader related stakeholders.

This principle was applied at all stages in the research phase of the report, from the setting of the survey questions, to 're-playing' and validating the analysis of the comments received in separate workshops nationwide.

A number of methods were employed to gather information and viewpoints for the review:

A. ***Industry and stakeholder workshops/forums;*** to help set the topics for examination and to define the questions that would be asked

B. ***Industry and stakeholder questionnaire/on-line survey;*** to establish the industry view using the questions (as defined in A)

C. ***Feedback and validation workshops;*** to playback the results and analysis of the questionnaires and to gain potential ideas for implementation.

Very early in the scene setting and initial workshops, respondents divided the topic into three broad sections; **establishing**, **maintaining** and **application** of gas competence. This naturally identified specific areas within each area and created a flow which represents the engineers' journey. This formed the structure of the survey, the validation feedback workshops and the content for this final report.

Throughout the report, samples of comments from respondents are used to illustrate specific points that industry respondents have identified. Further information about the number of comments made is provided to give an indication of strength of feeling, agreement or disagreement with the survey findings.

The comments are formatted within text box; see example below:

> ***"Direct quote from respondent....."***
> Survey comment - Region; Organisation type OR Validation workshop comment

5.1.1 Initial workshops/forums

Between October 2010 and January 2011, Gas Safe Register facilitated workshops (19 events) with registered businesses and other gas industry groups to understand their views on current gas competence and to find out if they believed changes were necessary. More than 65,000 invitations were sent out and 344 people attended (out of 560 accepted responses) for the 12 workshops held. The information from these workshop/forums was used to create the questions and the areas for further discussion and investigation.

5.1.2 Workshop format

The workshop format was forum based. Attendees were asked to express their views and then to discuss the issues raised as a group. The meetings were facilitated by Gas Safe Register personnel, including technical experts who have a broad understanding of the industry. Notes were taken at each meeting.

5.1.3 On-line survey

The initial workshops helped to define the areas and topics for the survey of registered businesses (see *Section 5.2 - On-line industry survey details*). The survey (see *Appendix D - On-line Survey; Questionnaire*) was sent electronically to 62,000 businesses on the Gas Safe Register database and over 400 organisations and individuals identified as key stakeholders – these being representatives of manufacturers, professional bodies, local authorities, charities, retailers/wholesalers and other bodies that have an interest in gas safety. A further 12,000 letters were also sent out (for those without an email address). The survey was available to complete between 7th March and 16th May 2011.

5.1.4 Validation and playback workshops

Further validation workshops (13 events) were held across the country following the results of the on-line survey to review and validate the findings. These workshops took place in July and August 2011. 63,000 invitations were sent out and 207 people attended these workshops (out of 348 accepted responses).

The feedback sessions encouraged attendees to discuss their reactions to the findings and to evaluate the practicalities and effectiveness of potential changes. These validation sessions also provided a valuable secondary function as it enabled the Competence Review Team to gauge the levels of engagement from the industry and to assess their appetite for participation in delivering potential solutions.

Attendees included representatives from small and large registered businesses, training bodies, certification bodies, trade bodies, charities and other stakeholders.

Opportunity was given to the wider stakeholder group that engages with Gas Safe Register to provide comment on the current competence framework. This stakeholder group encompasses over 400 organisations.

Additional one-to-one meetings were also held with the following organisations, who requested specific sessions or were unable to attend the group sessions:

- CSI (Consumer Safety International) Charity
- OPGO (Organisation of Professional Gas Operatives)
- UKLPG (United Kingdom Liquefied Petroleum Gas) Association
- The Dominic Rodgers Trust
- ARGI (Association of Registered Gas Installers)
- The Boat Safety Scheme
- CEDA (Catering Equipment Distributors Association)
- SMB (Standards Setting Body)
- EU Skills
- National Stakeholder Group (Gas Safe Register)
- ACS Awarding Bodies – Forum Meeting
- SLEAT (Society of Laundry Equipment & Associated Trades)
- GILG (Gas Industry Liaison Group)

The information derived from the workshops, surveys and comments was then analysed to identify the significant areas of interest and potential options/improvements.

5. Research cont.

5.2 On-line industry survey details

The objectives of the survey were to establish the view of the wider industry on gas safety competence and also to establish any potential suggestions for improvement. The on-line survey includes the full results from the quantitative and qualitative survey conducted (see *Appendix E – On-line Survey; PowerPoint presentation results*). The survey was carried out between 7th March 2011 and 16th May 2011; a ten week period. This on-line survey was heavily promoted in the Registered Gas Engineer (RGE) magazine across a number of issues. It was also publicised by other industry publications.

The survey received 6580* responses; a 10% response rate correlating to all registered gas businesses or 5% response rates to the 130,000 registered gas engineers.

* Breakdown of stakeholder response: Registered Gas Safe Businesses = 6028; Professional Bodies = 177; Local Authorities = 68; Manufacturers = 35; Retailer/Wholesaler = 21 & Charities = 10 (other organisations = 241).

The survey asked 38 'closed' multiple choice questions and also offered the opportunity for 10 open ended free type questions, from which a total of 11,672 comments were received (*Appendix F; On-line Survey - ALL comments & Appendix G; On-line Survey - Comment CODING*). A recognised professional research company (Kadence) carried out the research and confirms that this is a good response rate and provides a high statistical confidence level across all of the geographical regions sampled – i.e. sufficient responses were received to ensure an industry overall view.

Over 9 out of 10 (92%) of respondents were Gas Safe registered businesses, with the majority being domestic engineers (71%). Initial questions were used to establish demographic detail and respondent profile:

Which region is your organisation located in?	
London & South East	29%
North East	13%
North West	11%
South West	10%
West Midlands	9%
East Midlands	8%
East	8%
Scotland	7%
Wales	4%
Northern Ireland	1%

Description of organisation:	
Gas Safe registered business	91%
Other	4%
Trade or professional body	3%
Local authority	1%
Manufacturer	1%

Organisation type	
Domestic	71%
Domestic & Commercial	14%
Specialist	9%
Commercial	5%
Does not apply	1%

The response rate broadly represents the make-up of the current Gas Safe Register:

Organisation Type:	Sole Trader	73%	Small Business	19%	Large Business	8%

This background data gave sufficient comfort that the responses received were representative of the register base and that all registered businesses were given the opportunity to contribute.

6. Establishing Competence

6.1 Setting the scene for establishing gas competence

As an initial action, the review needed to understand if participants believed the current definition of competence was still applicable and relevant to their sector of industry. The feedback from workshops is that competence is made up of qualifications, experience and practical skill. The question asked was ***'Does this meet your definition of competence?'***

> ***'Competence in gas installation requires enough knowledge, practical skill and experience to carry out the job in hand safely, with due regards to good working practice. The installation should also be left in a safe condition for use. Knowledge must be kept up to date with changes in law, technology and safe working practice.'***

Over 9 out of 10 (92%) of respondents believed the description met their definition of competence.

When it did not, the main reasons for this was that it lacked any depth or details specifically regarding experience, training, ability/skills and knowledge.

The one small but significant safety change identified was the reference to leaving an installation safe; which respondents identified as a *'shall'* rather than a *'should'*. This was seen to remove any ambiguity.

Another change suggested related to the word 'installation', which should be replaced with 'work'; for a more rounded definition, as not everyone carries out gas installation work.

There was also negative feedback concerning 'fast track/short courses'.

> ***"Everyone in this industry knows that it's so easy to get into this game. With short courses and poor teaching the gas industry, like all professions, has been ripped to pieces to allow anyone into the trade. Passing a gas course does not mean you are capable of doing the job.***
>
> Survey - West Midlands; Domestic & Non-domestic business

> ***"It is our opinion that the "fast track" system employed by many people and training facilities only has time to teach people to pass exams. Companies seem to have evolved to sell training, offering huge rewards to anyone that buys their training. Learning in this way is only giving short term knowledge (which can be quickly forgotten), rather than a good understanding of your work and in turn confidence. It is our opinion that competence only comes from knowledge, experience & confidence."***
>
> Survey - North East; Domestic business

The survey asked a question in relation to the CoP20 1988 ACoP competence statement, for those who indicated that the current statement did not meet their definition. We asked them to ***'please specify how it currently does not meet your definition of competence'***. (220 survey comments in total).

Below are a few examples of comments received from the survey for the four areas of competence within the statement; 'experience', 'training/qualifications', 'ability/skills' and 'knowledge':

'Experience':

> ***"No better way of knowing the job than hands on experience."***
>
> Survey - London/South East; domestic

> ***''More practical skill and on job training is essential."***
>
> Survey - London/South East; domestic

> ***"People can have college based knowledge, but no practical experience"***
>
> Survey - Scotland; installation business

6. Establishing Competence cont.

'Training/Qualifications':

"Qualifications are important and a must, but from my experience you learn a lot more with on site experience with a competent person teaching you.'

Survey - London/South East; domestic

"Qualifications do not equal competence since they are primarily obtained only once. Additionally any knowledge gained from taking qualifications becomes either dated or 'lost'. Competence is based on continuous learning, practical work and experience gained over the working life."

Survey - East Midlands; domestic business

'Ability/skills':

"An inclusion of; 'The Competent Person must recognise their abilities, in training & assessments, in work aspects they can conduct, and adhere to those they have been accredited to and not complete gas work that they are not qualified to complete."

Survey - North East; domestic and non-domestic

"I find it hard to believe that someone who has no practical skills (i.e. retraining from say an accountant to become a gas operative) and in a few weeks of training in a class room and a few weeks on-the-job training can legally go and do gas work...".

Survey - East; domestic business

'Knowledge':

"A definition should not be open to interpretation - enough knowledge - could mean whatever someone chooses, I would imagine it would also be difficult to prosecute on such a definition. The second part of the definition: The installation should also be left in a safe condition for use – this sounds like it is an option. Maybe replace 'should' also with 'shall'. Competence to my mind is the ability to assess, install and commission all equipment for which registration is held in a safe manner and a timely fashion. This could and should be part of an assessment in a controlled environment. An annual 1-day assessment as well as the 5 year assessment would maybe also be beneficial."

Survey - London/South East; domestic business

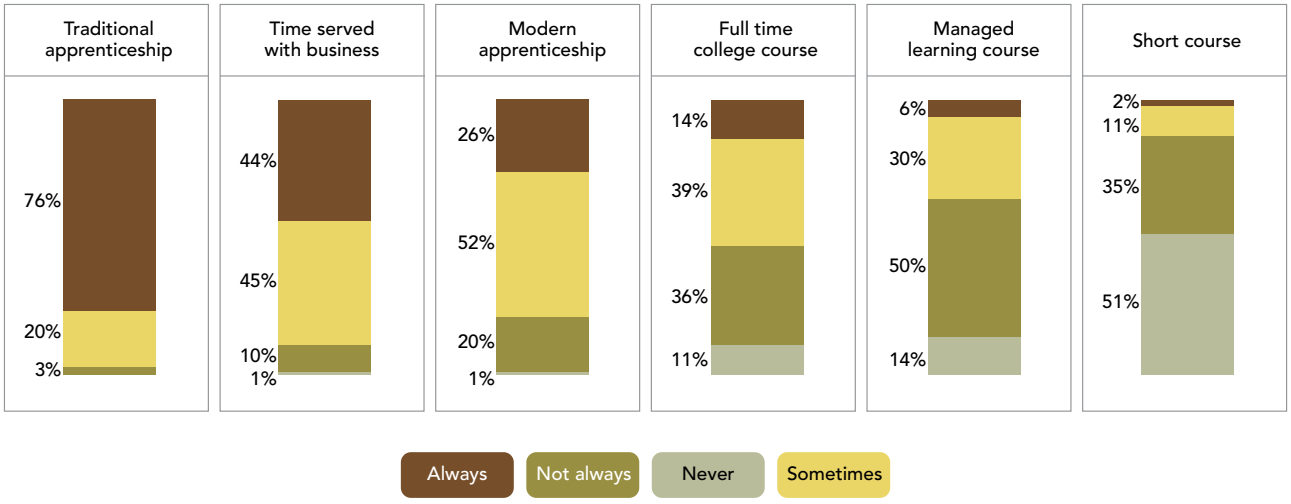
6.2 Options and routes into the gas industry

Over the four main areas of work (Domestic, Commercial, Specialist and Domestic/Commercial) all respondents were asked ***'Overall, how satisfied are you with the options available to those looking to enter the gas industry?'*** Respondents felt that sufficient arrangements were in place to establish competence (53%), although nearly a third (32%) disagreed.

Specifically, for the options available for new entrants looking to enter the gas industry, satisfaction levels were mixed. The majority of respondents were neither 'satisfied nor dissatisfied' (37%) when looking at entry into the gas industry. Overall more respondents were satisfied (35%) rather than dissatisfied (22%).

When respondents were asked ***'How effective do you think each route into the industry is?'*** *(Graph A - How effective do you think each route into the industry is?)*, opinions were strongly based towards practical based learning within a business. These were deemed the most effective route. Over half (51%) felt that 'short/fast track courses' are not an effective way to enter the gas industry.

Graph A : How effective do you think each route into the industry is?



Survey and/or validation comments confirm the need for quality training and assessment for new entrants:

> ***"The best way of attracting people to the business and ensuring they are competent when they go to work is a government funded body running hands on training to obtain the practical and theoretical skills required. The body should also be responsible for assessing engineers work in the field and being available to act as a help line for engineers in the field."***
>
> Survey - West Midlands; Service Maintenance businesses

> ***'Unfortunately experience not something you can get off the college shelf'***
>
> Validation workshop - Leeds

> ***Apprenticeships are essential. For a one man band like my business, it must be made much less onerous for me to take on an apprentice. I already do a couple of hours paperwork per evening and the added paperwork required by an apprenticeship is not an option for me. This needs to be addressed very soon or when installers of my vintage (57 years) retire, (and I believe the majority of current installers are around my age) there will be an extreme skills shortage.***
>
> Survey - West Midlands; domestic business

6. Establishing Competence cont.

Overview of current and historic routes into industry is explained in Table B (Table B - Entry routes into the gas industry).

Table B : Entry routes into the gas industry

Entry Route	Description	Qualification examples
'Traditional apprenticeship' **pre** 1994	Normally aimed at school leavers joining a skilled occupation. Learning mostly by following the example of a skilled person in the work place, backed up with theoretical studies at a college of further education. Between 3-5 years to complete gaining a recognised craft qualification. Predominantly delivered through British Gas when a Nationalised Industry. This qualification is recognised as Category 1 in the ACS scheme (see Section 6.6 Categories of new entrants; 'prerequisites for gaining gas safety competence')	City & Guilds: *e.g.* *660 Gas Fitter (full craft)* *662 Gas Service Engineer (full craft)* *6006 Gas Installation & Maintenance (NVQ)* *6016 Gas Installation & Maintenance* (NVQ)
Time served with business	Normally aimed at younger entrants (16-18). Must be in employment. Normally several years spent working with a businesses/skilled employer in gaining knowledge, skills and experience. Often, with no recognised qualification.	N/A
'Modern apprenticeship' **post** 1994	Normally aimed at younger entrants (16-24) who are in employment. Now based on a framework devised by SSCs which include a 'knowledge (technical certificate) based element, and a competence based element (NVQ & S/NVQ). Normally 2-3 year (4 years in Scotland) to complete gaining a recognised qualification. If aligned with ACS will give Category 1 recognition.	City & Guilds *e.g.* *6012 Gas installation & Maintenance activities (NVQ aligned with ACS)* *6034 Gas installation & Maintenance activities (NVQ not aligned with ACS* *6132 Gas installation & Maintenance activities (vocational award)*
Full time college course	Normally aimed at school leavers who are not employed (16-19). Vocational focused on key skills required for chosen occupation. Mainly a one year course consisting of 35 (average) weeks at college, with other weeks of home study. Mainly free for 16-18 age group. 19 + age group will be required to pay all or part of course cost. Gaining a recognised qualification. Little or no on-the-job experience.	City & Guilds awarded qualification *e.g. C&G 598 Pt 1 & Pt2*
Managed Learning Program (MLP) See Section 6.6	Offered by all CB and some other Training Providers. Range between 2 to 4 weeks of theory training plus 7 to 14 weeks of practical experience on site to gather evidence contained within a 'portfolio'. Normally aimed at those wanting to change careers and leads to 'Category 1' recognition; therefore entry into ACS assessment.	*Will lead to a certificate or award from the CB. These are vocational awards which following successful completion would allow entry into ACS as a Category 1 (see Section 6.7).* *Not subject to UKAS approval.*
Short Course (sometimes known as 'Fast Track') See Section 6.6	Normally aimed at those wanting to change careers. Approximately 4 weeks (or more) of theory training. (Some courses provide portfolio building and on-site with a qualified gas operative). Leads to 'Category 1' recognition; therefore entry into ACS assessment.	*Will lead to a training qualification awarded by the provider or a CB that allows the candidate to undertake domestic ACS and then registration with GSR. Normally unregulated training packages put together by training centres.*

Note 6

*'Entry Route' headings; the definitions used in **Table B** examining entry routes reflect the terminology used by working engineers and their routes into the gas industry over the previous 40 years from the initial fact finding workshop e.g. what they describe as a 'traditional apprenticeship' may not match the formal or correct description of the scheme but reflects their perception.*

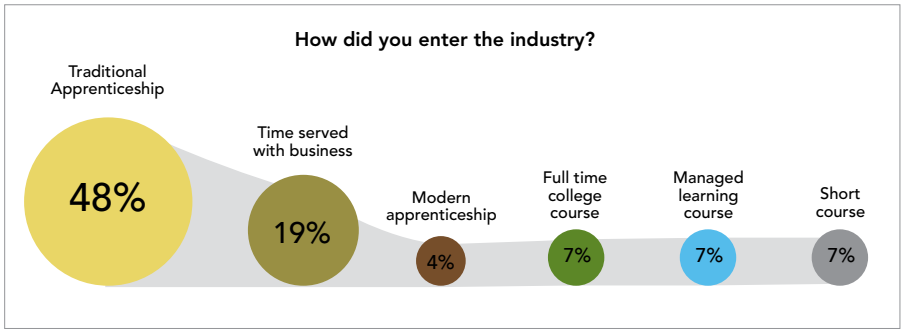
Note 7

'MLP' and 'Short Courses' should not be confused with a 'Limited Scope Courses' being offered by some Certification Bodies e.g. for Smart Metering Operatives.

6.3 ENTERING THE GAS INDUSTRY

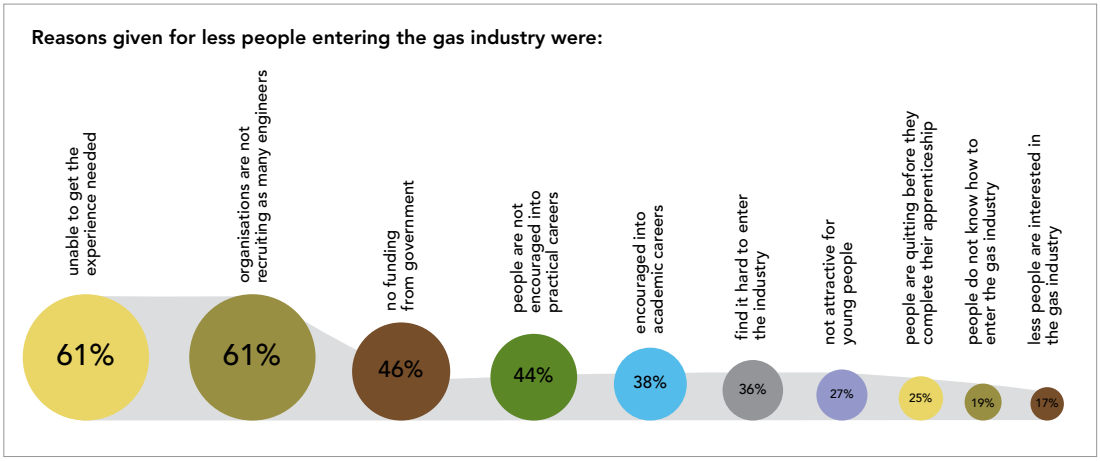
Just under half (48%) of respondents when asked ***'How did you enter the industry?'*** said they entered the industry through a traditional apprenticeship *(Graph B - How did you enter the industry)*. The routes deemed to be most effective were also the most common ways they had 'personally' entered the industry.

Graph B : How did you enter the industry?



At the fact finding workshops, some of the engineers we have spoken to said that less people are entering the gas industry, so the question was asked in the survey, ***'Why do you think they may have said this?'*** Over 6 out of 10 (61%) respondents believed the reason for less people entering the gas industry was because new entrants were unable to gain the practical experience needed, and organisations (large and small) are not recruiting as many engineers.

Reasons given for less people entering the gas industry were (more than one answer could be selected therefore total will not add up to 100%):



6. Establishing Competence cont.

6.4 Encouraging more people into the gas industry

For the Individual, practical based learning was seen as more important to them. For the Employer, funding for new employees was critical, followed by practical based learning when asked ***'What would encourage organisations to recruit more people into the gas industry?'***

	The Individual	The Employer
More respondents	*Measures to encourage more people into the gas industry:*	*Measures to encourage organisations to recruit more people into the industry:*
	Work based (on-the-job) learning	
	Practical based learning	Additional funding
	Combination of work and study blocks	Government incentives
	Internships in order to gain experience	Tax breaks
	Government incentives	Work based (on-the-job) teaching
	Information on how to enter the gas industry	Practical based teaching
	Flexible learning and working options	Combination of work and study blocks
	More control of their own learning	A select group that take on apprentices
	Increased status	Giving a 'provisional licence' to do gas work
Fewer respondents	Giving a 'provisional licence' to do gas work	

Respondents expressed the view that face-to-face training (81%) and attending courses at a training centre (77%) are the most appropriate for initial stages of training and that a more practical focus (57%) would be more effective for on-going assessment.

When asked about encouraging and training more new entrants at the validation workshops (67 comments); the overwhelming concern to registered businesses – especially sole traders – related to the lack of clear communication and availability of funding (46% in survey). Businesses in general also see funding as the key issues as whether to recruit more people into the industry.

Training is seen as essential in gaining the theoretical knowledge and initial skills to start work within the gas industry. Equally important is the need for each individual to be able to gain relevant on-the-job experience with a Gas Safe registered business. Gas Safe registered businesses are either not aware of any funding schemes or not understood by the vast majority – 81% who are sole traders (55,012 out of 67,738 registered businesses).

A business view:

> ***"Competence comes from training and supervision but not all companies can carry the burden of this cost. Help needs to be provided from a governing body. People cannot enter the industry unless they can find someone to take them on to gain experience and fill their portfolio. People cannot afford to take training wages if they are too low which also limits the intake of trainees."***

An individual's view:

> ***"Too much funding goes to the college maybe if funding was given to independent gas engineers; you would see more youngsters entering the gas safe industry."***

6.5 Funding for new entrants

At the initial and validation workshops, attendees felt that there was no incentive or financial help to take on new starters. Reasons given ranged from 'why train someone to take my work' to all of the costs and burden that an employer has to deal with (various insurances, time off work, time lost to train/teach the new starter, health and safety training etc).

EU Skills describe the funding arrangements as follows (October 2011):

> ***"Government funding may be available to help towards the cost of training and qualifications. This is usually paid to colleges or training providers, and will be subject to certain criteria (age of learner, location etc) and the UK nation where you live and work. To find out whether you are entitled to full/part funding for gas qualifications and apprenticeship programmes please contact your local training provider. The 'Skills Investment Strategy', detailing adult funding arrangements for 2012/13 (for England) is due to be published in December 2011."***

6.5.1 Brief funding summary

On the whole (except for periodic, specific initiatives e.g. getting the unemployed into work) funding is not generally available to employers. The employers benefit from government funding as training/qualifications/apprenticeships are either free or subsidised. Payment is made to training providers.

Funding for new entrants is geared around three main age groups; 16-18, 19-24 and 25 plus. However, the majority of funding is made available for the 16 – 18 age groups (the age gap has been lifted in Northern Ireland and Wales). This is via the Modern Apprenticeship or College Course routes. For Apprenticeships, the learner must be employed.

There is a lack of clarity about funding within industry:

- Funding differs per nation (i.e. England, Wales, Scotland and Northern Ireland)
- Funding differs according to numerous criteria (e.g. age, specific programmes etc)
- There are different funding 'streams' with differing rates. Rates are determined according to a complicated 'weighting' system per qualification so funding differs between qualifications, and between differing learners (age etc.) doing the same qualification (e.g. at the time of compiling this report, there were 6000 different funding rates for England alone).
- Funding criteria changes on a regular basis
- Employers can go direct to Training Providers (e.g. colleges)
- Training Providers must have a contract in place with the Skills Funding Agency (SFA) for gas courses, with the eligibility criteria being substantial.
- All funding is allocated to the Training Provider/College for learning (which is generally 100% for the 16-18 age groups and usually 50% of learning costs for older age groups).
- Payments are spread over the term of the course at different awarding stages (dependant on satisfactory completion of stages throughout the course; registration, various knowledge elements and completion).

During the validation workshops, there was significant concern that any available funding goes to the college only. Many attendees would welcome some funding going directly to them to offset cost of employing staff. Government funding was suggested in a 'student type loan'; also bursaries were mentioned as well as Engineers being paid by college to train on site.

Manufacturers and gas suppliers could also contribute to funding for training. Finally, tax breaks, especially for taking on apprentices was suggested.

> ***"Funding for the individual not go to the college all the time."***
>
> Manchester Workshop

> ***"'If companies can not afford to take on apprentices could there be a student loan system."***
>
> Glasgow Workshop

6. Establishing Competence cont.

6.6 Categories of new entrants; 'prerequisites for gaining gas safety competence' (Categories 1, 2 & 3)

It is a legal requirement that operatives carrying out gas work as defined in GSIUR 1998 must be competent and be 'a member of a class of persons approved for the time being by the HSE'; Regulation 3 (3). This 'class of persons' registration is satisfied by being registered with Gas Safe Register.

As a route to new and maintaining registration, individuals must hold suitable gas qualifications. ACS initial and re-assessment 'Certificates of Gas Safety Competence' are a suitable qualification for registration.

Individuals who require initial registration (new entrants), or wish to remain registered (experienced operatives or operatives extending their work range) are categorised in three groups; Category 1, Category 2 and Category 3 (see *Appendix H – ACS Guidance Note for Certification Bodies No. 4 [was No.8]*) and (*APPENDIX Hi - ACS Guidance Notes for Certification Bodies No. 8a*).

These categories were introduced in 1998 to group different levels of knowledge, skill and experience.

'Category 1'; *Experienced qualified/certificated* gas fitting individuals from within or outside of the UK (evidence required that certificates/experience meets UK requirements), seeking to renew expired or expiring certificates or extending their range of gas work.

Individuals must provide evidence to the Assessment Centre (AC) of their previous qualifications before they are allowed to undertake ACS initial or re-assessment.

'Category 2'; Individuals who hold ***some qualifications relevant or associated*** to the area of gas work in which they are seeking certification; or are enrolled with an AC, or registered with a Certification Body (CB) undertaking an S/NVQ award which has gas work included and ACS certification as an integral part of the award.

The individual must provide written evidence to the AC that they have personally undertaken 'on-the-job' gas work and have gained experience under the direct supervision of a competent person(s) employed by a Gas Safe registered business. This written evidence must detail the areas of gas work undertaken and will allow ACS certification only in those specific areas.

Individuals must also declare to the AC if they have had a competence certificate withdrawn in the past, or been deemed incompetent in the past.

Note 8

'Off-the-job' experience is training carried out in a training centre covering theory and practical workshops to simulate realistic work situations. 'On-the-job' is training carried out within customer's premises, under direct supervision of a competent engineer employed by a Gas Safe registered business. The candidate/business needs to ensure that the right amount and type of gas work is completed and recorded as evidence.

'Category 3'; Individuals who are ***new to the industry***, and as such do not hold relevant qualifications or experience and may be entering employment or changing career direction. Such entrants are not acceptable for entry onto an ACS initial or re-assessment. These individuals should be advised to undertake relevant training (off-the-job) and gain relevant experience (on-the-job) determined by the scope of gas work they wish to undertake when qualified and registered.

Note 9

EU Skills carried out a recent survey to gather industry views on the three Categories of Entry to ACS. This survey was completed on 31st August 2011, with 56 responses received (see Appendix I; EU New Entrants Survey Summary).

6.6.1 Managed Learning Program (MLP) summary

For new entrants, the creation and completion of a 'portfolio of evidence' is the way to prove that they have gained evidence of suitable gas work experience; both 'off-the-job' and 'on-the-job' evidence and experience. This portfolio is usually made up of the following:

- Name, address and Gas Safe registration number of the number(s) of businesses(s) providing the training
- Written evidence of the start and end dates of both 'on-the-job' and 'off-the-job' training programmes (can include photographic evidence of gas work carried out, witness statements, job sheets etc)
- The types and number of gas work undertaken, along with the names of the competent operative(s) that have provided the on-the-job training

There are seven Certification Bodies that offer MLPs (see *Appendix C*); some for commercial and LPG areas. The content is similar (if not identical) to the guidance information contained within the document (see *Appendix H*) and deals with matters of gas safety:

Core gas safety	Appliance type	Combined on-and-off-the-job training duration	
		Category 2 Candidate	Category 3 Candidate
CCN 1	COOKERS	8 weeks (40 days)	16 weeks (80 days)
CCN 1	** CENTRAL HEATING	14 weeks (70 days)	28 weeks (140 days)
CCN 1	SPACE HEATERS	10 weeks (50 days)	20 weeks (100 days)
CCN 1	METERS up to U6	6 weeks (30 days)	12 weeks (60 days)
CCN 1	** WARM AIR (stub duct)	10 weeks (50 days)	20 weeks (100 days)

*** The durations of these training programmes includes work activities other than just gas work. The above durations take into account the inefficiencies of carrying out the right type of 'on-the-job training'. These times could be reduced if the right type of work is readily available. The duration of the training programme should be balanced between both 'on-the-job' and 'off-the-job'.*

As part of the validation exercise, the Competence Review Team attended a forum hosted by the Awarding Bodies. A request was made for information concerning their individual MLPs (information was supplied by six out of the seven awarding bodies).

In summary they offer:

Training and experience requirements	Category 2 Candidate Duration	Category 3 Candidate Duration
Initial 'off-the-job' in-house training at a training centre	@ 2 weeks	@ 3-4 weeks
Periodic monitoring of evidence (i.e. the portfolio)	½ day per week	½ day per week
*Placement/internship/employment with a Gas Safe registered businesses with direct supervision by competent engineer(s) working on gas installations/servicing/maintenance/repair **Normally the responsibility of the candidate, which can prove difficult to achieve in practice*	@ 5-7 weeks	@ 10-14 weeks

Note 10
One MLP course is accredited by UKAS.

One MLP course states that a candidate could take up to two years to meet the required level of gas work experience. However, most MLPs offered indicate that candidates could complete these courses within 3-6 months.

On completion of a portfolio of work based training and experience for the relevant MLP course, successful candidates are then issued a training certificate and are then eligible for entry to ACS assessments.

6.6.2 Short/Fast Track Courses Summary

Some private training providers also offer Short/Fast Track Courses, mainly with theoretical off-site training only, but some with guaranteed placement with a Gas Safe Registered business. These courses are aimed at new entrants with no previous experience (i.e. Category 3) or candidates with a relevant skill such as plumbing or mechanical engineering (i.e. Category 2) wishing to extend their skill base.

If candidate is successful in completing these courses, they then normally lead to initial ACS assessments; which on completion, allows registration with Gas Safe Register in a very short time. Industry is very wary of such course as an individual can become registered with very little on-site experience.

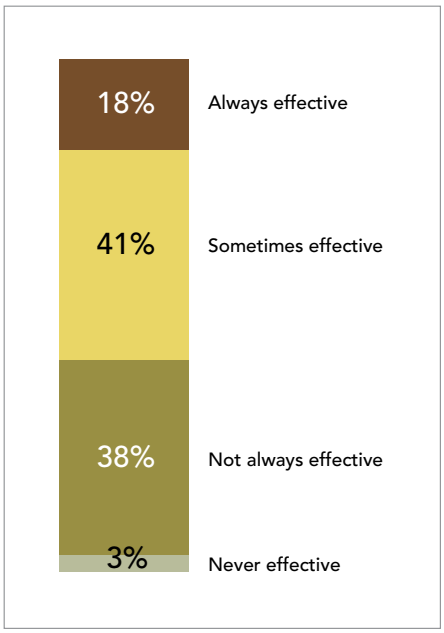
6.7 Policing and Monitoring New Entrants

The various options for new entrants reflect the differing needs of new trainees; from young entrants and those wishing to transfer into the gas industry from other related careers (e.g. engineering) or a complete change of career (e.g. any other occupation). Although there is a method of monitoring the end goal (i.e. ACS assessment), there is no national standard or monitoring of the quality of training received by the individual before being assessed. In practice, this leaves interpretation against the agreed competence standards down to the individual assessor and/or assessment centre procedures in place.

An important point through general discussion across the validation workshops was that 'one type of qualification/entry route' will not suit all new starters wishing to establish themselves within the gas industry – irrespective of age. Flexibility is needed which is currently available with the current entry routes; but the inconsistency of training and the difficulty in gaining gas work experience concerns industry most.

The question was asked ***'How effective is the current process of policing and monitoring those entering the gas industry?'***. The results (*Graph C*) could be read in several ways.

Graph C : How effective is the process of policing and monitoring of new entrants into the gas industry?



It could be said that almost 6 out of 10 believe that the process is effective ('Always' plus 'Sometimes' effective).

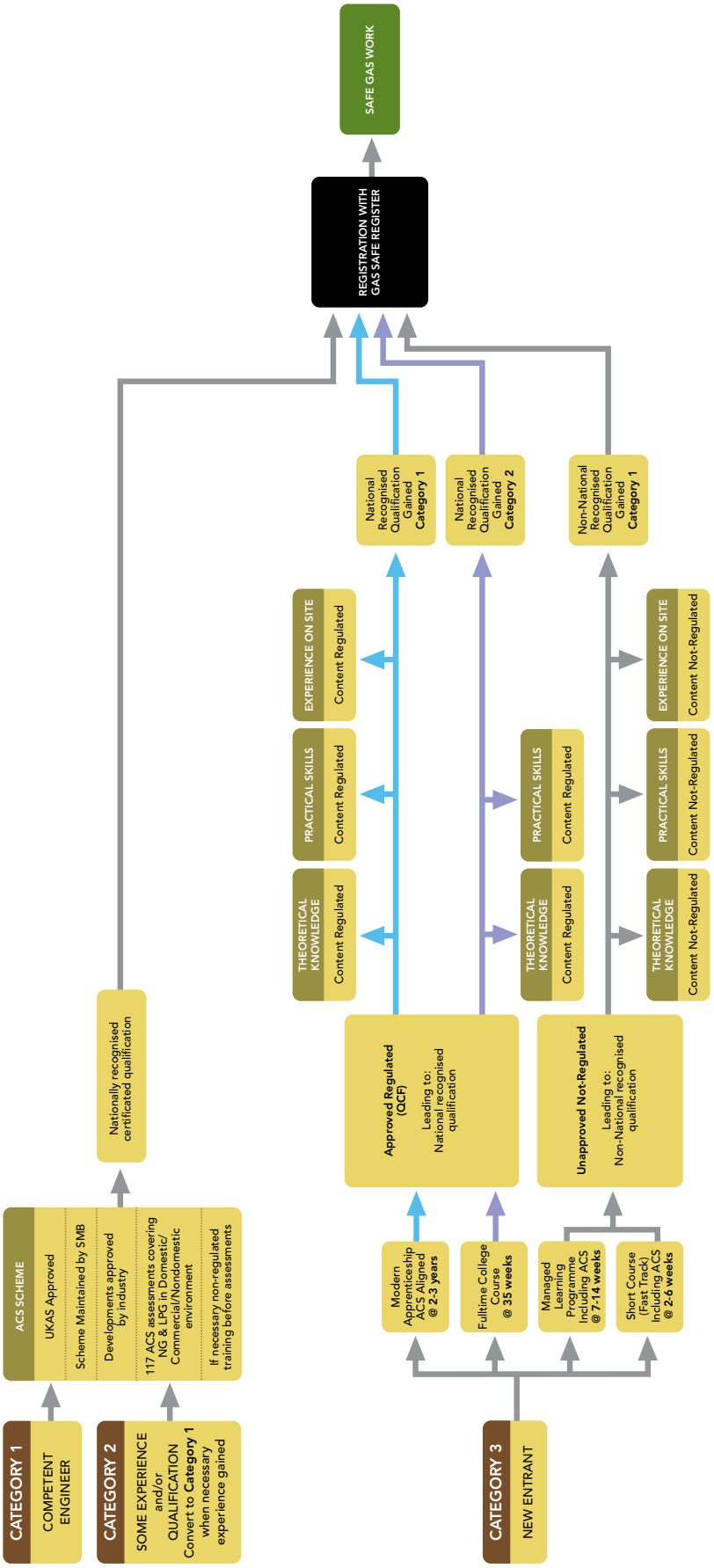
However, only 18% believe they are always effective, which could leave the remaining 72% saying they are not (a mixture of 'sometimes', 'not always' or 'never' effective).

What came across at validation workshops, one-to-one meetings, and seems clear from the views of respondents to the survey; is that the prerequisites for new candidates needs a clear and consistent definition and method of recording, so as to confirm engineers competence.

6. Establishing Competence cont.

Diagram C : Engineer Competence Journey

NEW, SOME EXPERIENCE and/or ASSOCIATED QUALIFICATION & COMPETENT Engineer



A small sample of the survey comments relating to monitoring of portfolios (1121 survey comments in total) were as follows:

- 49% believe that there should be more frequent checks (assessments, evidence verification and on-site audits)

  Currently, in order to obtain full funding (for employers or training centres), candidates must succeed. There is pressure at assessor / internal verifier levels to get candidates through to successful completion. External verification is just a paperwork exercise and assessors / IVs know what will get past them. A college / training centre has to maximise their funding streams in order to survive. Candidates are not sufficiently tested and there is often no true independence as assessors / IVs are too closely linked with the colleges / training centres that employ them. Genuinely independent assessment of candidates in the workplace can show if they have sound reasoning and judgement.'

  Survey – Wales; non-domestic business

- 24% feel that better training and structure is needed (44% in the Commercial sector)

  More stringent checks need to be made on the evidence submitted in portfolios. Having just completed one with my current apprentice it became clear that the evidence could be fabricated to allow anybody of little or no experience to achieve access to the gas industry. Although my apprentice is extremely knowledgeable and displays obvious competence, little effort was made to verify the work in his portfolio.....

  Survey – London & South East; domestic engineer

- 20% believe there should be clearer instructions (36% in the Commercial sector)

  Portfolios whilst I believe are a very effective way of demonstrating practical application and experience, a definitive national minimum measure needs to be stated and rigorously managed and policed. It is not acceptable for new entrants to the industry / particular qualification to turn up at assessment centres without any Portfolio or experience - to be taught how to pass the assessment in the AM and then to 'sit', the assessment in the PM and then be deemed as competent!

  Survey – East; a retailer / wholesaler

- 14% feel that falsification of portfolios should be minimised

  'Each entry level engineer should have a comprehensive portfolio with different mentors and should be inspected by Gas Safe Register on completion of their relevant course. Gas Safe Register should be notified of a site address to conduct a physical inspection of safe gas work. I also believe that the probation period with Gas Safe Register should include periodic visits to maintain standards, all of this should be a part of the engineer's portfolio.'

  Survey – North East; domestic business

- 10% felt that there should be independent assessors

  "Checks on the work that is being carried out in the portfolio. Making sure it is the trainee that is doing the work and they are being monitored by a professional whilst they are doing it."

  Survey – East of England; domestic business

6. Establishing Competence cont.

6.8 Other comments for establishing competence

There was misunderstanding by respondents that ACS was perceived as a training course, rather than it being the actual measurement of gas safety competence for existing gas engineers. ACS does not create competence; it is a measure of existing competence.

When asked if stakeholders had any further comments in relation to establishing competence, these included:

- 4 out of 10 mentioned that the current ACS did not necessarily create competence
- Around 1 in 5 believed there should be more encouragement of apprenticeships (both 'traditional' and 'modern').
- Commercial engineers were more likely to think there should be less reassessment for engineers and that ACS does not necessarily establish competence. This was also higher amongst respondents who are working in larger organisations.
- Engineers have questioned the format of the theoretical parts of the current ACS system, with comments including:
  - 'Which other industry requires 100% achievement?'
  - 'As there are three attempts at each question (two written – one verbal questioning by the assessor); 'most people of general intelligence could pass'. Why are there so few failures in the assessment process – is the system too easy?'
  - 'There are no LPG or Non-domestic courses for new entrants'

A selection of comments to the following '*...do you have any other thoughts specifically relating to the achieving of competence within the gas industry*' (792 comments received) are listed below:

> ***'...I find it disheartening that competence is bought when taking the ACS qualification. How many people fail? New trainees coming into the industry are allowed to gain their ACS without the necessary experience and knowledge.'***
> Survey – East Midlands; domestic businesses
>
> ***'20 week gas courses offered by many ACS centres are diluting the industry with engineers with little or no practical experience most of whom go on to set up their own businesses giving the industry a bad reputation.'***
> Survey – West Midlands; service engineer
>
> ***'I think that the quality of training varies enormously. I think there may be too many colleges (private or otherwise) wanting to make money by giving training while offering absolutely no support for the trainee to get practical experience so many go through college with no idea of how it works in the real world. They are then thrown out on their own to complete their work experience but are rarely ready to do so.'***
> Survey – London & South East; domestic business
>
> ***"I feel that the current courses are not long enough for operatives to work in the industry on their own immediately after completing them. Courses need to be longer and there needs to be some financial help for business's who would like to take on an apprentice but find it difficult because as everybody knows an apprentice needs lots of one-to-one tuition on site."***
> (Survey – East Midlands; registered business)

6.9 Validation workshop comments for establishing competence

These comments came after playback of the on-line quantitative survey results at the 13 validation workshops held around the country. Below is a summary of the comments from attendees:

General comments on encouraging more people into the industry (27 comments)

There was concern that cost was prohibitive including insurance, health and safety issues and the minimum wage. Many small business attendees stated that they would only now employ a close family member or relative, even though they receive regular requests for employment opportunities from other young and mature people.

> ***'The problem I can see is that 75% of the industry is sole traders who can not afford to take on apprentices'***
>
> Basingstoke Workshop

Funding (67 comments)

There is a significant concern that any funding goes to the college only. Many attendees would welcome some funding going directly to them to offset the cost of employing staff. Government funding was suggested in a 'student type loan'; also bursaries were mentioned as well as engineers being paid by college to train on site. Manufacturers and gas suppliers could also contribute to funding for training. Finally, tax breaks, especially for those employing apprentices was suggested.

> ***Funding for the individual not going to the college all the time'***
>
> Manchester Workshop

> ***'Taking trainees through an apprenticeship is difficult, all the requirements can be quite taxing and expensive'***
>
> Basingstoke Workshop

Entry into industry for young people (27 comments)

Mainly concerns that gas industry is not an attractive option for school leavers. The gas industry should do more to market itself to young people. Engineers commented that careers advice at the end of school seemed to be mostly veered towards higher education not vocational education.

> ***'If not going to university you are a failure, this is the wrong perception'***
>
> Wrexham Workshop

> ***'The lowest achievers in school are encouraged into the trades and we are expecting them to do highly skilled jobs'***
>
> Basingstoke workshop

Gas work experience/practical work (34 comments)

Major concerns were that entrants could end a course and be qualified to work without supervision with very little practical experience of on-site aspects.

> ***'They haven't had enough time or training to get the experience they need to be a good gas engineer'***
>
> Northolt Workshop

6. Establishing Competence cont.

Entrance into industry via 'Short courses' (Comments; 'Negative' = 13; 'Positive' = 6)

Main concerns related to undertaking a short course alone should not be a valid entry into industry (must be backed up with a recognised period of experience with sufficient dept of knowledge). However a number of attendees had entered this way and had gone on to complete the recognised routes to registration.

> ***'....will not employ short course entrants, no skill and costs to much to bring up to speed'***
>
> Bristol workshop

> ***'....I came from the armed forces with a resettlement grant, the course was difficult but good placement found afterwards'***
>
> Ex-military; Plymouth workshop

Policing of courses (26 comments)

Concerns regarding consistency of courses, colleges and portfolios. Also 'wrong people' getting onto gas industry entry courses i.e. younger entrants enrolled without wanting a career within the industry.

> ***'Learning programmes need to be monitored by one body so that you can be confident that everybody is at the same standard'***
>
> Northolt workshop

> ***'people are paid to get bums on seats but those kids leave with a certificate but no motivation to do the job'***
>
> Bristol workshop

6.10 Points for consideration; establishing competence (new entrants)

Listed below are key points for consideration as identified by respondents to the on-line survey and also feedback received at the validation workshops, one-to-one meetings and overall correspondence with industry bodies.

6.10.1 Current measurement of competence

ACS operating to the standard BS EN ISO/IEC 17024; 2003 is the current method for the measurement of competence within the existing downstream gas industry. Throughout the competence review, although concerns were widely expressed regarding time lost due to retaking ACS assessments and the overall number of assessments covering the domestic, LPG and commercial areas; industry has no real appetite to move away from this standard. However industry expects consideration is given to a number of relevant points:

Areas for consideration:

- The industry wants to develop other options that would be similar or equivalent to ACS, which has more flexibility in how they are delivered and managed for registration with Gas Safe Register. E.g. EU Skills proposals for a GCS have been released (see Section 4.4.2 - Alternate option to ACS for employers).
- There is currently a 100% pass mark, although this is supported by several retakes and an 'open book' culture. There is scope for discussion on adopting a revised model e.g. changes to pass mark, a ''closed book' approach in certain core elements. There are strongly held and widely differing views on this within the industry.
- Improve communication in order to develop a clearer understanding of where the legal responsibility for the measurement of competence sits. It is not widely understood within the gas industry or the process by which competence standards are set or changed.
- Highlighting and promoting the role of the SSB and its decision making processes will increase understanding and increase levels of engagement across the sector, especially the sole trader which makes up over 80% of all registered businesses.
- Once SSB's role is clearly understood, this may lead to an increase in contributions and industry comments in regards to proposed changes/improvements in the future. E.g. Sections of industry are unaware of the recent change of S/NVQ qualifications for new entrants to the Qualification and Credit Framework (QCF) introduced in August 2011.
- Industry identified that consideration needs to be given to a review of the 'Standards of training in safe gas installation Approved Code of Practice (ACoP)' (CoP20) 1988 to reflect advancement in working practices. E.g. The inclusion of combustion analysers is also needed, which are widely used by industry.
- The competence definition needs to be changed to confirm that all installations 'shall' be left in a safe condition for use…..', rather than 'should'. Also 'installation' to be replaced with 'work' to reflect the wider scope.

6.10.2 Routes to enter the industry, encouraging more people and gaining work experience

Apprenticeships, with a significant 'practical experience' component were seen by a significant majority of respondents as the preferred route of entry. However, industry mainly understands that this route is predominantly for the 16-18 age groups and is not appropriate for all new entrants. Industry requires a route for mature persons who want to enter or change careers into the gas industry.

Other options are still needed to encourage sufficient numbers to replace those retiring or moving into other careers, but must have sufficient rigour in the approach to training and practical gas work experience.

Industry is concerned that the quality and sufficiency of training as well as a consistent approach to the amount of practical hands-on gas work gained or 'on-the-job' experience – for courses such as MLP, are not regulated.

Industry considers 'short duration courses' seen to be offering just weeks of training (which is predominately only theoretical in content with little or no practical content) to be ineffective routes into the industry.

6. Establishing Competence cont.

Industry advised that a major barrier to most new entrants was the difficulty individuals had in being able to gain sufficient depth and range of on-site gas work experience – the essential part to becoming a competent gas engineer.

Respondents were aware that many organisations are not recruiting as many engineers as in the past, which may lead to a significant skills gap in the near future.

Respondents were very concerned that young people (especially school leavers) are not being encouraged into practical careers, but are steered towards the academic path. When they are delivered into a practical route; many are unable to get the vital gas work experience needed by working with or for a Gas Safe registered businesses/engineer.

Areas for consideration:

- To help new entrants gain practical work experience, it was suggested it would be beneficial to bring the three constituent parts together for both theoretical knowledge to be applied on-site and vital practical experience gained for the individual. It was suggested that this could be in the format of a framework/infrastructure' which could be developed nationally. This would cover:
  - new entrants/candidates,
  - colleges/training providers, and;
  - Gas Safe registered businesses willing to pass on their gas knowledge, skills and experience.

This would need to be under the umbrella of a 'co-ordination body' to manage the three groups together (e.g. EU Skills).

- When being recruited into the gas industry, practical skills and knowledge were by far the most important needs for the individual learner. Industry requires clear information regarding what is involved in working in different sectors of the gas industry. Also straightforward communication regarding how to enter industry will benefit the industry and aspiring gas engineers.

6.10.3 Policing/monitoring new entrants

MLPs were seen by many respondents as a suitable platform for people 'cross-training' from their current career/job role in associated engineering and/or building sectors; but industry is concerned that there are no national regulated standards to follow. Therefore, industry considers that inconsistency remains with variations of experience gained before completing these courses (as with 'short course' above).

Industry requested that a high priority is considered for a national regulated method of assessing portfolios from MLPs courses and other type of 'short/fast' track or 'foundation courses' for those candidates changing careers and moving into the gas industry. This needs to be followed by some form of external monitoring to ensure consistency amongst training providers.

Only 18% of Industry considers that current policing of new entrant standards is sufficient. Adequate measures need to be put in place immediately to allay fears especially with short courses e.g. some respondents advised that they had seen the same gas appliance appear in different portfolios.

Areas for consideration:

- National guidance needs to be reviewed for the minimum levels of gas work training received and experience gained for all new entrants; irrespective of their 'route' into the gas industry.
- Industry requests that training is not only a method to gain entry to ACS to 'pass the exam'. Depth of experience is seen as the key to an individual's level of competence and this can only be gained over time.
- Independent third party accreditation could be considered as a way to deliver consistency within MLP/short courses (e.g. by UKAS) and the checking of content contained within portfolios of evidence (e.g. more site visits to check). Training providers commented that regulation may increase cost.
- In conjunction with developing consistent certification of new entrants across all routes of entry, there is seen to be a need for sufficient policing and monitoring of all training providers offering such training and assessment regarding gas work.
- With regard to portfolios of practical gas work gained on-site, falsification of evidence needs to be minimised or eradicated. A greater level of targeted site inspections will be seen as helping to prevent falsification and fraud
- Industry expects that, where the quality of training falls short of industry requirements, sanctions should be developed and applied to those providing the training in order to raise standards overall.

6.10.4 Funding for new entrants

Respondents see a need for changes to the arrangements around funding for the recruitment and training of new industry entrants. There is limited awareness and understanding of how to access some of the funding already available. Funding for businesses to recruit and train new starters – especially for sole traders is an area of confusion and appears bureaucratic to the few respondents who have attempted to access any funding. Respondents were concerned that the whole funding issue is deterring small businesses from attempting to recruit new staff and to pass on their knowledge to others. Many sole traders advised they would now only employ a close family member.

Points raised included requests for some direct funding to be available for the employer to offset the cost of employing, such as salary, various employer insurances, personal protective clothing etc?

Areas for consideration:

- Industry requires clear guidance for small businesses – especially sole traders – on how to navigate the perceived 'bureaucracy' in being able to access funds for training/employing new starters.
- Requests for clearer communication as to 'how' and 'where' businesses could apply for potential funding was a recurring theme.
- Respondent's suggestions were made for potential re-allocation or re-distribution of existing funds i.e. not just for colleges/training centres – but also for employers.
- Industry feels that additional funding could be sourced from gas suppliers, manufacturers etc, or the creation of a student loan scheme (similar to academic university courses).

7. Maintaining Competence

7.1 Setting the scene for maintaining gas competence

This section deals with the majority of businesses and engineers who have already been assessed as competent by a Certification Body (via the five year ACS cycle) and may be registered with Gas Safe Register (via annual registration renewal).

There are currently 70 initial ACS assessments (for first time/new entrants), 26 changeover assessments (from one gas to another, e.g. natural gas to LPG); and 21 re-assessments (on-going maintenance of competence) for individuals to prove their gas safety competence. (See *Appendix J – ACS List*, for a full list of all current ACS assessments).

7.2 Standards for maintaining gas safety competence

Satisfaction with the current options for maintaining the standards of gas safety competence was asked in relation to qualified gas engineers. The question ***'Overall, how satisfied are you with the options for maintaining the standards of gas competence in qualified gas engineers?'*** was asked across the three sectors, Domestic, LPG and Commercial (see Section 3.2 for Definition of sector):

Sector	Satisfied	Dissatisfied	(Neither satisfied or dissatisfied)	[Don't Know]
Domestic	59%	19%	(20%)	[2%]
LPG	33%	12%	(30%)	[25%]
Commercial	32%	11%	(30%)	[29%]

Overall satisfaction with maintaining the standards of gas competence in engineers outweighs dissatisfaction in all job sectors. There was higher satisfaction for the maintaining of Domestic gas engineers competency with almost 6 out of 10 very or quite satisfied (a ratio of over 3 to 1; 59% satisfied to 19% dissatisfied).

7.3 ACS; is it fit for purpose for initial gas safety and reassessment?

Specifically relating to the current ACS system of 5-year re-assessment of gas safety competence qualifications; questions were asked for both core gas safety and additional assessment e.g. specific appliance categories; ***'At the moment all registered gas engineers have to undertake a reassessment of core qualifications every five years. Do you think the core ACS qualifications are appropriate?'***

Are ACS qualifications appropriate for:	Sector	Yes	No
	Domestic	79%	21%
	LPG	72%	28%
	Commercial	73%	27%

Almost 8 out of 10 gas stakeholders believe that ACS qualifications are appropriate for those working with Domestic gas when asked; ***'In addition to the core qualifications gas engineers also undertake additional assessment/reassessment on additional elements relating to specific appliances or installation.'*** This is slightly lower amongst those in Commercial work and those working with LPG (around 7 out of 10).

In addition to the core reassessment, are additional reassessment qualifications (e.g. appliances) fit for purpose:	Sector	Yes	No
	Domestic	78%	22%
	LPG	79%	21%
	Commercial	70%	30%

Most of those working in the Domestic and LPG sectors thought the additional reassessment was fit for purpose for them, but those in the Commercial sector were slightly less likely to think it is fit for them when asked ***'Can you please provide reasons as to why you think it is not fit for purpose?'***

The reasons given for Domestic ACS ***not*** being fit for purpose were:

- ***Accessibility*** (30%); provide assessment/regulation updates rather than complete reassessment (31% for Commercial).
- ***Cost of 5 year reassessments*** (24%); (12% for Commercial).
- ***Suitability*** (19%); 'one size fits all' mentality (28% for Commercial).
- ***Updating***; 15% reassessment is not updated/developed (21% for Commercial).

Note 11

The base size for LPG was low (87), but the issues within this sector was 'One size fits all' (56%); 'Reassessment not updated' (44%) and the 'Cost of 5 year reassessments' (22%).

The majority of Domestic and Commercial engineers believe that there should be updates instead of additional re-assessment. There was concern across the industry that there was a 'one size fits all mentality' with reassessment and that it was not kept up to date.

Domestic and LPG engineers were concerned with the cost of reassessment, whereas Commercial engineers were more concerned that it did not give them the practical skills required on site. This view reiterates the confusion in that some see ACS as 'training' rather than what is, 'assessment of gas competence'.

7.4 Survey comments – 'reassessment not being fit for purpose'

In total, 2996 comments were made as to re-assessment 'not being fit for purpose' from the survey question ***Can you please provide reasons as to why you think it is not fit for purpose?'*** This was separated for the three sectors of Domestic (1313 comments), Commercial (785 comments) and LPG (898 comments).

7.4.1 Domestic comments:

Two comments favouring 'updates' rather than 'complete reassessment':

> ***"I personally don't think gas engineers need to go through the full reassessment every five years as only a small percentage of updates occur and we are kept up to date with them through the gas engineer magazine and the gas installer magazine (published by CORGI) and through the gas safe website."***
>
> Survey – Wales; domestic engineer

> ***"I feel only the changes that have come about need to be covered, having to re take tests and so on is just another way of providing jobs for the boys."***
>
> Survey – London & South East; domestic engineer

A comment on the 'cost' of 5-year assessment:

> ***"Don't agree having to undertake elements re-assessment, (cost and time) just a money maker for training establishments. Agree with core re-assessment and additional update training on the day."***
>
> Survey – North West; registered business

A comment on the 'one size does not for all' for assessment:

> ***"...A much more flexible and cost effective way of keeping engineers up to date would be to use the CPD system where we are required to attend one day events each year. This would keep all engineers up to date with the current issues and be more affordable than having to find time and money once every 5 years...."***
>
> Survey – East; domestic registered business

7. Maintaining Competence cont.

A comment about 'reassessment not updated/developed':

> *"Repetitive covering the same ground, competence already established. Areas where change has taken place only need assessing, dependent on the change, theoretically or practically dependent on the change."*
>
> Survey – North West; registered engineer

7.4.2 Commercial comments:

Two comments on being assessed on 'updates' rather than full reassessment:

> *"I think it should be more practical. Also a covering of the basics in training would be enough. Why do we have to sit the same exams again - why not just a thorough covering of the updates?"*
>
> Survey - London & South East; business

> *"In what profession do you have to do the same courses every 5 years? Yes update us on the changes in the industry and the new regulations, but don't treat us like unprofessional people".*
>
> Survey - West Midlands; registered business

A comment about reassessment 'not updated/developed':

> *"We should not have to go through reassessment every 5 years on the same or similar questions. Those engineers who have been through the reassessment say for 10 years or more, (this is 2 lots of assessments) should be assessed on the new updates only."*
>
> Survey – East Midlands; domestic and non-domestic business

7.4.3 LPG comments:

A comment on the different elements (e.g. Natural Gas & LPG):

> *"Anyone wishing to work in the LPG sector must first achieve qualifications in natural gas and then changeover to LPG. For anyone who only works in the LPG industry this is additional unnecessary work and costs. As many LPG engineers are nearing retirement age and there are less people entering the industry due to the difficulties it is going to leave a large gap in what is an essential industry."*
>
> Survey – Scotland; LPG registered businesses

A comment on appliance assessments:

> *Appliance assessments are wholly unnecessary. All appliances must be installed and maintained to the manufacturer's instructions. These instructions override all other regulations (though normally they incorporate them) and so following the instructions is all that is required. Current appliance assessments are a horrendous extra financial burden on sole traders where qualifications can't be shared out amongst two or more staff.*
>
> Survey – Wales; LPG registered businesses

7.5 Reassessment intervals

Although there are over 130,000 registered engineers on the Gas Safe Register database, there are varying degrees of gas work carried out by engineers i.e. registered engineers do not all carry out gas work all of the time.

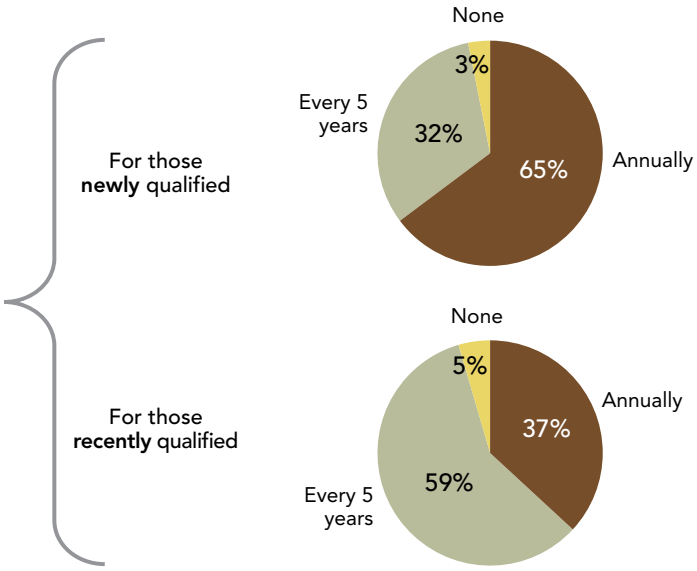
For frequency of assessment intervals, each respondent was asked to rate their preference of reassessment on a timeline of *'Annually'*, *'Every 5 years'* or *'No reassessment'* when asked ***'Please look at the statements below and select which would be appropriate for each type of gas engineer:'*** (see *Graph D – Reassessment intervals*).

Newly or recently qualified

When presented with the assessment intervals for engineers of varying experience levels, there was a general consensus that those that are less experienced need to have more regular assessment intervals.

Graph D : Reassessment intervals

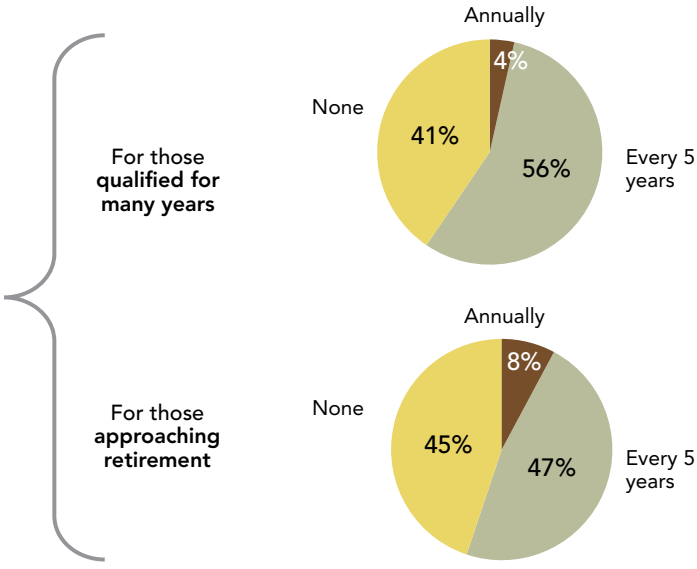
General perception that there is a need for **shorter assessment intervals** for newly qualified engineers (i.e. annual assessments in)



Qualified for many years or approaching retirement

Those with more experience were deemed to need reassessment every 5 years or even have no need or for reassessment. The majority still felt reassessment every 5 years for those near retirement was appropriate.

For those qualified for many years, the perception for those qualified for many years or approaching retirement was existing arrangements for reassessment (i.e. every 5 years) **is suitable** or **no assessment intervals**



7. Maintaining Competence cont.

Note 12

Survey comments concerning the current frequency listed 94 respondents that five year assessment was too frequent, compared to 33 who felt if was too infrequent.

7.6 Maintaining competence

When asked ***'Thinking about the components included as part of the core assessment, which statement best describes your opinion on the current content of the core assessment?'*** Over half of respondents (54%) felt that the content of the core assessment/re-assessment is about right and fit for purpose. The remaining respondents stated that it could be improved i.e. appliances and other elements could be included into a core assessment (e.g. From April 2012 ACS assessment CPA1 will become part of core). More stated that there was 'too much content' (21%) with a small percentage saying the opposite (4%).

When asked ***'If the current system for maintaining competence was to be amended or changed for established gas engineers, which of the following do you think would be effective?'***, respondents replied with (more than one answer could be selected, therefore total will not add up to 100%):

- Flexible options for reassessment (44%)
- Combining assessments (41%)
- More simplification (40%)
- More practical focus (34%), with a few asking for more theoretical focus (6%)
- Other = 7% (various responses)

When asked ***'Which of the following do you currently do in order to maintain your competence as a gas engineer?'*** The majority relied on free information sent directly across the trade. This included receiving the RGE magazine, Technical Bulletins published through Gas Safe Register and other updates from industry. Renewing ACS also rated highly, as many engineers confirmed at the validation workshops that the vast majority take refresher training before taking their gas safety/appliance/other element reassessments. The training is considered by many to be their main means of being updated with changes.

The supplementary measures which scored highly were other training courses, informal evening events and alternative industry magazines. The lesser used methods involved a degree of new technology such as DVD (Digital Video Discs) and CDs (Compact Discs) and content available online.

To assist engineers with their on-site work, many felt that industry should produce an authoritative standard as guidance for implementation by all. The GSIUR 1998 state what the individual 'can and can't do'; whereas engineers would like a code that says 'how to do it'. Many comments also raised the need for industry to combine essential parts of current guidance for registered businesses and engineers into one printable reference guide or 'bible' for ease of use on-site e.g. Gas Industry Unsafe Situations Procedure, GSIUR summary and advice, RIDDOR guidance, latest gas safety bulletins, essential safety procedures (tests/checks) etc.

7.7 Other comments for maintaining competence

When asked if respondents had ***'...any other thoughts specifically relating to the maintaining of competence in the gas industry that has not been covered so far?'*** these included:

- There should be more focus on recent safety updates and changes
- The current system is too costly and should be cheaper
- There was interest in monitoring competence on a more continuous basis with adding in past performance (e.g. CPD, on-site inspections) rather than just assessments
- Some felt they were being assessed on irrelevant elements
- Replace re-assessment where possible with on-site inspections

At the end of the maintaining of competence section of the survey, an open ended question was asked of respondents; ***'if they had any other thoughts specifically relating to the maintaining of competence in the gas industry that has not been covered so far?'*** The following quotes are a brief indication of comments received (632 comments received):

A comment on 'simplification of assessments':

> ***'As an established gas engineer I would like to see the amount of gas training courses reduced or brought together. I welcomed the recent news that the cen-1 & wat-1 were to be brought together, however I thought this did not go far enough. Where established engineers are concerned the courses do not have to be as in-depth and as long as the initial assessment.'***
>
> Survey – North East; domestic & non-domestic business

A comment on having 'flexibility of assessment and CPD':

> ***Period reassessment should be extended beyond 5 years for engineers that have proven CPD and are not known to Gas Safe with any potential work related issues.'***
>
> Survey – South West; non-domestic business

A comment on 'other options for assessment':

> ***'I think that regular on-line tests by the Gas Safe Register, maybe on a yearly basis would be a useful indicator of an engineers knowledge. 5 years is a long time and a lot of knowledge is forgotten. Technical bulletins and industry updates, new technology and changes can be missed.'***
>
> Survey – London & South East; domestic business

A comment on 'frequency of assessment':

> ***There needs to be more regular on site assessments along with more regular in centre assessments. Annually is too frequent but every 5 years is too far apart - perhaps every three years would be a compromise?***
>
> Survey – London & South East; domestic business
>
> ***Reassessment training and updates should be completed annually to ensure persons are updated every 12 month period. Currently registered engineers that don't bother to read industry update publications such as 'Gas Engineer' may not be gas safe because they are out of date with current standards or regulations. This would mean no reassessment each 5 year period but a smaller update package and assessment program every 12 months.***
>
> Survey – West Midlands; Domestic

Two comments on 'costs' involved:

> ***'Reassessment is expensive and time consuming for established engineers I bet if records were checked the people that cause accidents are either un qualified or recently qualified?'***
>
> Survey – East England; domestic business
>
> ***'Renewal is important but it should be spread and cheaper I have just completed my reassessment and it was £1250 but I have had to take a week off work therefore the course has cost me in the region of £3000'***
>
> Survey – Scotland; domestic business

7. Maintaining Competence cont.

7.8 Validation workshop comments for maintaining competence

Below is a summary of the comments taken during the open forum validation workshop discussions from attendees:

ACS scheme (37 comments)

Some attendees were satisfied with ACS as it stands, however others have concerns with cost, the 5-year cycle, and too many assessments.

> ***'The 20% that are dissatisfied are 'worried about cost not that ACS is not good'***
> Bristol Workshop

> ***'You may perceive me as low risk but I still have to go every 5 years for re-assessment'***
> Basingstoke AM Workshop

Reassessments (52 comments)

Cost is a big issue. Also, some comments were made regarding too many aspects of an assessment that are not really applicable. The assessments should only be based on changes to standards and technology. The time taken to complete is also a factor.

> ***'ACS is worn out, its to expensive at £1000 to refresh every time'***
> Birmingham Workshop

> ***'Too many ACS assessments need to carry out work activities'***
> Glasgow Workshop

Continued Professional Development - CPD (34 comments)

CPD was raised by engineers at many of the validation workshops. It was believed that manufacturers' courses and other industry events could be used as evidence of maintaining gas safety competence; as long as these courses were validated and had measurable outcomes for either hands on practical work (e.g. new appliance training) or theoretical updates (e.g. seminars) that tested gas safety knowledge and understanding. Overall it was viewed that CPD should be available as part of proving competence, and should include technical forums and manufacturers' training.

> ***'CCN1 most important, perhaps CPD is allowed for appliance categories'***
> Newcastle Workshop

Flexible option (54 comments)

A combination of CPD and assessments, with CPD 'points' that lead to less time at an assessment centre. A CPD programme that included Gas Safe Register inspections or complaint investigations.

> ***'More site assessments maybe with 50/50 CPD based on what we actually do'***
> Northolt Workshop

Validation workshops overall confirmed that engineers felt that on-site inspections are the way forward in confirming application of competence; be it for new, established engineers or those maintaining their competence for many years.

7.9 POINTS FOR CONSIDERATION; MAINTAINING COMPETENCE

Listed below are key points for consideration in relation to 'maintaining competence' as identified by respondents to the on-line survey and also feedback received at the validation workshops, one-to-one meetings and the overall correspondence with industry parties.

7.9.1 STANDARDS FOR MAINTAINING GAS SAFETY COMPETENCE

The survey results identify that industry levels of satisfaction with existing arrangements for maintaining gas safety competence for engineers, outweighs dissatisfaction across all three industry sectors, Domestic, Commercial and LPG.

Within the current ACS competence scheme, there are in total 117 assessments (i.e. initial, changeover and reassessments) covering the Natural Gas/LPG Domestic to Non-domestic work range. As each industry sector mainly concentrates on its own competence requirements, there seems to be no real appetite from respondents for a major change to the scheme, or suggestions for any radical change.

7.9.2 ACS; IS IT FIT FOR PURPOSE FOR INITIAL GAS SAFETY ASSESSMENT AND REASSESSMENT?

Specifically relating to the current ACS system (BS/EN 170240), nearly 8 out of 10 respondents believe that ACS competence assessments are appropriate and are fit for purpose for domestic gas safety.

For the Commercial and LPG sectors, it was slightly lower at over 7 out of 10 respondents.

However, 2 in 10 within the industry are dissatisfied with the current ACS scheme. Suggestions for improving the current 'one size fits all' of ACS scheme, included measurable and validated CPD to be part of an overall measurement of competence (see *Section 7.9.3, Section 7.9.4* and *Section 7.9.5 Areas for consideration*).

7.9.3 SURVEY COMMENTS – 'REASSESSMENT NOT BEING FIT FOR PURPOSE'

Industry confirmed that cost is a significant factor. The vast majority of attendees at the validation workshops (sole traders and small businesses) take pre-reassessment training at their assessment centres - before taking their ACS reassessment. Pre-assessment training is not mandatory.

Although training and actual reassessment are separate costs, many businesses bundle them together and perceive that they are, along with the cost of non-productive time off work, part of the overall financial burden of being reassessed.

However, from various workshop discussions, there is a perception that some assessment centres are directing candidates to their separate in-house training option, before re-assessment rather than just offering re-assessment as a standalone option. The inference here is that some ACS centres are making unnecessary additional financial gains.

There are concerns within industry that the five yearly ACS re-assessment is being used as the time for many to catch up with industry changes. Many respondents believe this is wrong and a system to update businesses regularly should be explored other than articles in trade magazines.

Areas for consideration:

- The current 5 year re-assessment time period. Although the majority of respondents are not unhappy with the current scheme, there were requests for flexibility and or for different options. Some called for annual reassessments for those wishing to be assessed each year. For those who felt that formal re-assessment were too frequent, suggestions such as every 7-10 years and other no formal assessments were needed as with other professions (electricians, mechanics, surgeons, architects etc).
- Frequent comments were made that re-assessments should concentrate on gas safety changes introduced since the previous assessment undertaken by the candidate and/or those changes made annually (since the previous assessment). Comments also confirmed that core GSIUR 1998 Regulation 26(9) competencies must always be re-assessed.

- There could be a greater correlation between the amounts of gas work in any given area that an engineer carries out and the frequency with which they are reassessed on that competence. This may lead to an increase or a decrease of frequency of assessment either in an individual element or in overall gas competence. This may require the development of a refreshed overall 'risk model' for the monitoring and maintaining of competence.
- Validated industry courses that were developed to include measurable practical and/or knowledge and understanding gas safety elements should be added and included into a 'risk model'.
- Industry commented that consideration should be given to different learning styles. There is concern that industry is losing competent operatives who cannot adapt to a 'going back to school approach' in classroom style situations.
- Greater emphasis on practical assessment compared to theoretical questions/tests.
- Internal quality control systems accredited to a recognised standard (e.g. ISO 9000 or any other recognised standard) should be added and included.

7.9.4 Reassessment intervals

For the majority of industry, the current reassessment interval of five years is still acceptable. However, some respondents (94) commented that the five year frequency was too frequent and (33) felt five years was too infrequent.

For 'newly qualified' engineers; two thirds of respondents wanted annual re-assessments, due to the perceived lack of depth of on-site experience.

For those recently qualified, there was still recognition that some form of reassessment should take place although views differed as to whether this would be annually or in a five year cycle.

For those 'qualified for many years' or approaching retirement; over 4 in 10 felt there should be no competence reassessment.

Note 13
The definitions of 'newly', 'recently' and 'many years' – was not prescribed in the survey and will reflect the respondents own perception of which categories applied.

Areas for consideration:

- More flexibility around the frequency of undertaking re-assessments, either upwards or downwards.
- A changed balance; with increased practical focus and less theoretical input.
- An increased emphasis on recent changes in matters of gas safety; therefore checking that the individual has kept themselves up to date with recent industry changes
- Re-assessments to automatically be as comprehensive and in-depth as the initial assessment – use risk assessment of key gas safety checks (i.e. GSIUR Regulation 26[9]tests) to determine the need for less or more tests/checks to demonstrate competence
- There was discussion about how to create a correlation between the frequency of reassessment on a particular category or appliance and the volume of work undertaken by an engineer.
- There were also discussion around dropping reassessment, if the individual can produce clear evidence of measurable gas safety assessments on the range of activities undertaken, e.g. alternative in-house GCSs.

7.9.5 Maintaining competence and other comments

Many engineers discussed the need to maintain their knowledge of changes to technology and working practices as they are introduced. There was also discussion about how annual or bi-annual training and/or assessment could provide potential benefits in maintaining their competence.

There was appetite for recognition of Engineers' gas safety knowledge and skills attained through other means (other than ACS), which could be part of a risk-based competence process and which has the potential for becoming an individual's gas safety competency records.

Industry would welcome flexibility and options to demonstrate an individual's competence – with real-life on-site work to be included as an element of the competence cycle.

Areas for consideration:

- Develop a format for individual gas safety competency record to demonstrate maintenance of an individual's on-going gas safety competence.
- Recognition of any registration inspection processes that have been completed where the business/engineer has been monitored against current standards including RIDDOR adherence, GIUSP adherence, but also any other inspection related history such as on-site complaint investigations.
- Extend re-assessment periods for individuals who have a proven track record of maintaining their competence and have clear records of no justified complaint history regarding unsafe gas work (e.g. consumer complaints, inspections, RIDDOR F2508G[2] etc).
- Include recorded evidence of businesses' internal supervision/quality control procedures that relate specifically to gas safety.
- Include validated and approved appliance industry courses that contain gas safety information with a form of recorded assessment for the individual.
- Develop industry guidance (simplified/practical guidance) for safe gas work to cover all three sectors, Domestic, Commercial and LPG. Engineers feel that this should be produced in a printable/hard copy version for all to use on site.

8. Applying Competence

8.1 Setting the scene for application of gas competence

The *Establishing* and *Maintaining* sections of the report (Sections 6 and 7) examined how those working with gas achieve, maintain and demonstrate their competence to the national standards. While, in an 'ideal world', these competencies would be applied in every job undertaken by an Engineer and all of the knowledge, skill and experience of the individual remain at the highest level throughout the competence cycle; it is recognised that this is not the case in many instances in the real world.

This Applying Competence section therefore looks at the systems and processes which are in place to monitor or police the application of competence in gas work. It also examines the respondent's current understanding and perception of the purpose, scope and effectiveness of these systems and, where possible, looks at potential revisions to these processes to ensure they are appropriate, effective and correctly enforced.

8.2 Background

Regardless of the route taken into the gas industry, or the processes used to maintain competence, the final test is always how competence is applied in consumers' homes and places of work. Ensuring that competence is applied includes issues relating to the reporting of unsafe work and ultimately the enforcement of GSIUR.

The on-line survey explored the reporting of unsafe gas work in relation to the Gas Industry Unsafe Situations Procedure (GIUSP) and Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) regarding F2508G2 reports relating to unsatisfactory fittings or workmanship (referred to as RIDDORG2).

The questions around unsafe gas work were principally aimed at establishing levels of awareness and satisfaction regarding RIDDORG2 reporting. However, in many cases respondents have given feedback on a broader range of activities which could be deemed as reporting 'unsafe work'. This crossover then accounts for some of the dissatisfaction expressed:

- there is some limited understanding of the purpose of RIDDORG2
- there is limited understanding of how RIDDORG2 data is shared e.g. with Gas Safe Register and industry
- there is limited integration with other reporting channels e.g. direct reports to Gas Safe Register, Trading Standards, Building Control, Environmental Health
- there is confusion around communication and feedback received when a report is made and what action has or will be taken

8.3 Current reporting system

Up until August 2011, various methods were available to report RIDDORG2 offences; internet, post, faxes, telephone and email. In October 2011, the HSE changed the way that reporting of gas reports can be undertaken for Great Britain. Now, all RIDDORG2 reportable incidents of dangerous gas fittings can only be reported online (this means that dangerous gas fittings can no longer be reported by, telephone, faxes, post or email – unless the reportee has no internet access).

However a telephone service remains for reporting fatal and major injuries only i.e. G1 incidents.

The on line reporting system consists of five pages where the relevant information is collected. On completion of the on-line form the information is automatically transferred to the RIDDOR database and the person reporting the DGF will receive a copy for their records. The operation of this system does rely on the reporter having a valid email address.

When asked ***'How satisfied respondents are with the system for the reporting of unsafe gas work by gas engineers?'*** over 5 out of 10 (54%) of respondents were satisfied with the reporting of unsafe gas work. 29% were neither satisfied nor dissatisfied, with 17% dissatisfied.

8.4 WHICH AGENCIES RECEIVE REPORTS OF UNSAFE GAS WORK?

When asked ***'...which of the following agencies or organisations do you believe receives the reports***, the vast majority correctly identified the HSE at 87%. However, nearly 7 out of 10 also thought Gas Safe Register automatically received these reports as well. There is a clear misconception within the gas industry that the Gas Safe Register as a matter of course receives a copy of RIDDORG2 reports on reportable unsafe gas work.

Following on from asking which agencies received reports, the next questions asked ***'Of all the times you have submitted a report of unsafe gas work, how often did you receive an update after reporting?'*** Having reported unsafe gas work, via RIDDORG2, the response rate regarding the unsafe situation they had identified, was:

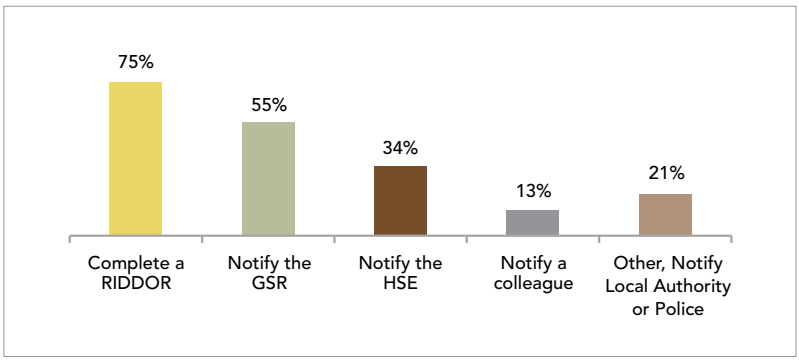
- 69% have never had feedback
- 11% who have always had a response
- 10% seldom had a response
- 10% sometimes had a response

8.5 EXPERIENCE OF REPORTING UNSAFE GAS WORK

In all, just over two thirds of respondents (68%) had come across unsafe gas work in the past when asked ***'Have you ever come across unsafe gas work whilst you have been doing gas work?'***.

The next question was ***'Which of the following would you do as a result of coming across unsafe gas work?'***. Three quarters (75%) correctly stated that they would complete a RIDDORG2 upon coming across unsafe gas work that was RIDDORG2 reportable, although a third (34%) said they would notify the HSE; a misunderstanding here for some respondents. Just over half (55%) said they would notify Gas Safe Register. However, this percentage does not correlate with the actual number of reports of unsafe gas work received directly from registered businesses (see *Graph E - What would you do if you came across unsafe gas work?*)

Graph E : What would you do if you came across unsafe gas work?



Note 14

'Other' e.g. correct the work, make it safe, apply USP, depends on situation, notify gas supplier etc.

When asked ***'what was your experience of reporting unsafe gas work?'*** – the response rate was the second highest overall at 19% (2235 comments received) of the ten open ended questions asked within the survey. The responses can be split into three areas:

Positive

- 11% thought their report was acted upon
- 6% said they rectified the situation – then reported the unsafe situation

> ***'Completing a RIDDOR form and dealing with the HSE was fairly straightforward. Was usually followed up and dealt with by a Gas Safe Inspector.***
>
> Survey – Wales; charity, both domestic and non-domestic

Fault corrected – but not reported

- 8% didn't bother reporting – they rectified the situation there and then

> ***Action was taken to make the situation safe. But the owner was unhappy for his installation to have been reported even though he and his family were at risk.***
>
> Survey – South West; domestic registered businesses

Negative

- 16% thought that insufficient / no action was taken
- 14% received no feedback from the report
- 5% had a bad experience (non specific)
- 5% thought Gas Safe Register seemed uninterested

> ***'It was not followed up as there are not enough Health & Safety Inspectors.'***
>
> Survey – South West; service & maintenance
>
> ***'Waste of time seems to be a paper chase with no outcome or purpose. Should be via gas safe website with post code and house number and fault found. There is never a known engineer that installed the item so why put it on form.'***
>
> Survey – London & South East; domestic registered business
>
> ***'Nobody takes it any further to a prosecution. It just makes statistics.'***
>
> Survey – London & South East; domestic registered business

Note 15

18% no description of incident; less than 5% not listed.

8.6 Reasons why RIDDORG2 is not completed

When asked for ***'...what reasons do you think they*** (engineers) ***would not have completed a report?'***. This was the highest response rate at 30% of all ten open-ended question within the survey (3455 comments received):

- 34% said that they may rectify the situation themselves there and then – so as not to 'upset their customer'.

> ***"The customer lets them put the work right straight away and they cannot be bothered with the additional paperwork.... They do not want to report them as this could effect future business, word of mouth etc."***
>
> Survey – Wales; mainly domestic registered businesses

- 14% said the process needs to be simpler and clearer; this view was more prevalent among larger businesses.

> ***"Filling out a RIDDOR on line is awkward and disjointed. It should be easier. Maybe we could report through the GSR website, that way all our information could be already entered for us. also: filling out paperwork which will be ignored by the person being reported is pointless"***
>
> Survey – East England; domestic registered business

- 14% thought that the information was not sufficiently acted upon; this view was more prevalent among small businesses.

> ***"Because nothing gets done unless there has been a serious incident i.e. fatality"***
>
> Survey – North East; non-domestic registered businesses

- 13% felt it was a waste of their time; this view was more prevalent among engineers doing a mixture of commercial and domestic work.

  "They may feel that reporting the work is 'getting someone into trouble' and that it will have no effect anyway. The RIDDOR procedure is daunting for some people."

  Survey – London & South East; domestic registered businesses

- 12% thought the process involved too much paper work.

  Don't want to get involved in loads more paper work there is too much involved in gas work as it is already. Just put it right and get on with life. Some poor work would have been done too long ago so best to just put it right. I also have my doubt as to what the HSE will do anyway if you believe what you read.

  Survey – South West; domestic registered business

Note 16

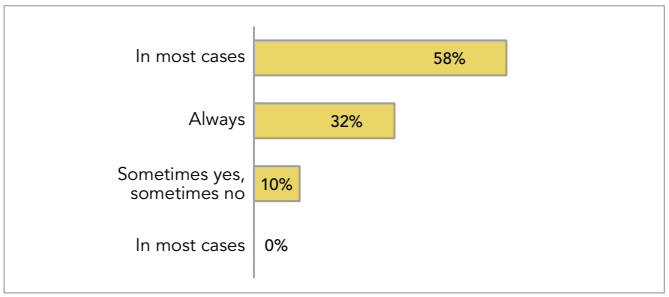
Comments less than 12% not listed.

8.7 ENGINEER COMPETENCY

Two further questions were asked concerning engineer competency in the application of competence.

The first being ***'In your opinion, do registered engineers apply their competence when they carry out gas work?'***

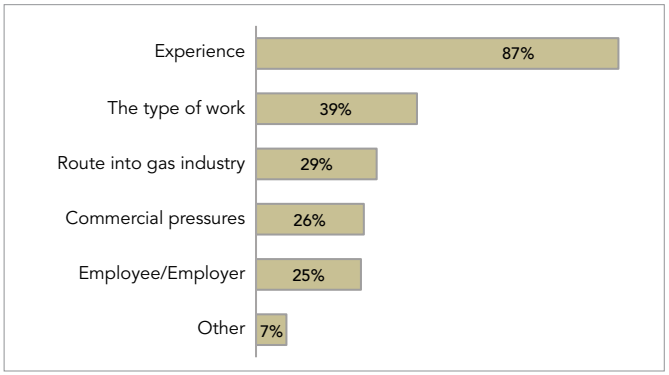
Graph F : In your opinion, do registered engineers apply their competence when they carry out gas work?



Nearly 6 out of 10 gas stakeholders believe competency is applied 'in most cases' when carrying out gas work, with 10% saying 'sometimes yes, sometimes no'. Only a third (32%) said engineers always apply their competence.

The second being ***'In which case, which factors influence whether an engineer applies their competence?'*** (see *Graph G - In which case, which factors influence whether an engineer applies their competence?*)

Graph G : In which case, which factors influence whether an engineer applies their competence?



Respondent's identified lack of 'experience' as the main factor when competence is not applied (more than one answer could be selected, therefore total will not add up to 100%).

8. Applying Competence cont.

8.8 Other comments on applying competence

The main responses for adding further thoughts on applying competence were the need for more inspections in the industry (29%), this was followed by a further 11% saying there needs to be more inspectors (Gas Safe Register).

Others thought the restriction on sales of appliances and fittings (13%) to registered engineers only may be a good idea (as previously covered in the Enforcement Review).

Other comments include the need to follow up on reports (11%) and introduce heavier fines (10%) on those working without being registered (as previously covered in the Enforcement Review).

At the end of the 'applying competence' section of the survey, we asked respondents ***'if they had any other thoughts specifically relating to the applying of competence in the gas industry that has not been covered so far?'*** (221 comments received):

> ***"Warning Notices raised by engineers/inspectors on AR/ID should be made publicly accessible e.g. similar to HSE prosecutions web site. The public are not informed well enough of poor history businesses/engineers."***
> Survey – Scotland; domestic & non-domestic

> ***"There is too much time spent on checking registered engineers than stopping illegal installers."***
> Survey – North East; domestic registered businesses

> ***'I believe, as a 'man on the tools' we should be able to make a call or report to the Gas Safe Register, this should be our only point of contact with the details of the report being passed on to the authorities as required. The more red tape encountered by the operative the less likely they are to follow through to the end and the more likely poor and illegal gas work will go unreported until a fatality occurs.'***
> Survey – West Midlands; domestic registered businesses

> ***'More people need to be aware of gas safe and to check ID cards and if they are up to date.'***
> Survey – West Midlands; domestic registered businesses

> ***'Most of the bad gas work I come across are engineers working beyond the scope of there qualifications. For example engineers qualified to fit domestic cookers and ranges thinking they can fit commercial catering equipment.'***
> Survey – West Midlands; service & maintenance registered businesses

8.9 Validation workshop comments for applying competence

Below is a summary of the comments taken during the open forum validation workshop discussions from attendees:

RIDDORG2 reporting (18 comments)

Why bother to report, time consuming and report not user friendly. Some would sooner rectify work than upset customer (especially catering environment). Some customers do not care. No action taken by HSE.

> ***"Registered guys do feel uneasy about reporting other registered guys"***
> Newcastle Workshop

> ***"If you get so much evidence and no prosecution what is the point"***
> Basingstoke Workshop

No feedback from HSE (26 comments)

Major reasons given why RIDDORG2 situations were not reported were that most stated that they did not receive any acknowledgement. Respondents wanted feedback as to what action had been taken.

> ***"All you want is acknowledgment that your RIDDOR has been received/actioned"***
> Birmingham Workshop

GSR to get all RIDDORS (24 comments)

Concern that Gas Safe Register were not getting information for all RIDDORS so therefore cannot investigate further. Others felt that Gas Safe Register are not fully able to 'police the gas industry' as the registration body.

> *"I think it paramount that GSR should know where the dodgy work is being found"*
>
> Basingstoke Workshop

More information regarding RIDDORG2/IncidentsG1 (9 comments)

It would allow the wider gas industry to know what caused an incident, or what potentially to look out for when on-site.

> *"Would be good to learn from others mistakes"*
>
> Leeds Workshop

8. Applying Competence cont.

8.10 Points for Consideration; Applying Competence

This section on Applying Competence is different to the previous two sections (Establishing and Maintaining Competence), as it is focussed on inspection but also the areas concerned raised by respondents reporting of unsafe gas work that is reportable under RIDDORG2, that relate to unsatisfactory gas workmanship and/or gas fittings.

RIDDORG2 and reported related issues were of significant interest to respondents and made up 49% of all comments received.

Listed below are key points for consideration in relation to 'applying competence' as identified by respondents to the on-line survey, feedback received at the validation workshops, one-to-one meetings and the overall correspondence with industry parties.

8.10.1 Current reporting system

Overall just over half of respondents were satisfied with the current RIDDORG2 reporting system. A third was neither satisfied nor dissatisfied. 17% of respondents were dissatisfied due to the lack of overall feedback and final outcomes.

However, due to the high level of responses to the two open ended questions within the survey on application of competence (see Section 8.10.2 and 8.10.3), industry strongly indicated that the current system of reporting unsafe gas work requires further modification and additional feedback mechanisms.

8.10.2 Which agencies receive reports of unsafe gas work?

From survey responses nearly three quarters of industry have the misconception that Gas Safe Register receives all gas related RIDDORG2 reports. This was confirmed at almost all validation workshops where several respondents had reported unsafe gas work via RIDDORG2 and were asking 'why aren't Gas Safe Register taking any action when we (registered businesses) report them?'

Note 17

The current system was explained and the changes introduced in September 2011 of how to report under RIDDOR (the change to electronic means where possible). It was also explained that Gas Safe Register will investigate any alleged instances of unsafe gas work – when that information is received.

Areas for consideration

- A clear explanation of the current RIDDORG2 reporting system and recent changes needs communicating to reinforce the message.
- Include more depth and detail on the systems and principles of RIDDORG2 for delivery in both initial ACS assessments and reassessments. This would develop greater industry awareness which would aid wider understanding for those reporting such incidents.

8.10.3 Experience of reporting unsafe gas work

Survey comments from industry for this particular question generated 19% of all the comments received (2235 in total), with over two thirds commenting on their experience in reporting a RIDDORG2 contravention.

The feedback experience after reporting unsafe gas work was mixed; some reporting positive feedback with action taken by HSE, to others reporting the opposite, slow or no feedback, insufficient action taken and Gas Safe register seeming uninterested and some respondents not bothering to report the incident at all.

The feedback from industry indicates a low level of reporting of unsafe work as most defective work is corrected at the time of the visit. This anecdotal evidence is supported by the findings of Gas Safe Register's inspection regime which supports the assertion that there is more unsafe gas work than is being reported by engineers.

Areas for consideration:

- Industry clearly identified feedback as essential for those who do report unsafe gas work.
- There was appetite for closer working and better information sharing between the enforcement agencies to ensure a consistent approach when dealing with unsafe gas work.
- Advances in technology creating better data input methods offers opportunities for a streamlined service.
- Creating a 'one-stop shop' for reporting of unsafe gas work for the gas industry would simplify the process.

8.10.4 Reasons on why RIDDORG2 is not completed

30% (3,455) of all comments received from respondents clearly indicates that industry wants improvements made to the current system which they believe may then increase reporting.

Over a third of respondents confirmed that they rectify the unsafe work at the time, without then forwarding details on and reporting it to HSE.

There is a misconception within some sections of the gas industry that all RIDDORG2 reportable contraventions automatically trigger an investigative action. This disconnect between the perceived purpose and the actual purpose of RIDDORG2 may be one of the contributors to relatively low reporting rates.

Respondents indicate a real appetite for an appropriately and robust reporting system which triggers appropriate enforcement action.

There is also remaining a misconception that when a contravening appliance/fitting has been repaired, it cannot be reported under RIDDORG2.

Areas for consideration

- Clearly communicate the purpose of RIDDORG2 to all parties; industry, engineers and consumers.
- Publish up-to-date and regular summary statistics of gas related RIDDORG2 reportable offences back to industry with analysis and outcomes/actions achieved.
- Reinforce the link between unsafe gas work and incidents.
- Publish the cause of major incidents (G1) in order that information can be fed back into training and certification bodies to reinforce the linkage between competence/training elements and 'real world' incidents.

8.10.5 Engineer competence

Respondents clearly communicated that their expectation for a new entrant (establishing themselves within the gas industry) or an experienced engineer (working for many years); is the same end result - safe gas work must always be achieved.

The opinion of respondents as to whether engineers apply their competence was 32% *'always'* do, 58% *'in most cases'* and with 10% believing that *'sometimes yes, sometimes no'*.

Industry believes that a lack of 'practical experience' is the main factor when competence is not applied.

Areas for consideration:

- There was discussion around motivation. There was awareness that engineers may not be applying their competence which they hold. A number of reasons were suggested, including a lack of sufficient experience (a lack of context), commercial/time pressure on-the-job etc. There is further scope for discussion around reinforcing the link between theoretical and applied competence.
- Respondents saw a potential benefit in the mandatory notification of all new gas appliances, as a tool for tracking unsafe and illegal gas work.
- There was also a call for the sale of gas appliances to be restricted to registered businesses/engineers.

9. Terms of Reference

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1. Aim

The review of domestic gas safety undertaken by HSE in 2006 (see Frontline – 'Review of Domestic Gas Safety' 2006) recognised the ongoing desire within the gas industry to address issues relating to competence and to monitor the effectiveness of the current ACS system and other assessments of competence such as S/NVQs.

As part of the procurement process for establishing a new gas registration scheme HSE stipulated within the Service Concession Agreement that the successful party would undertake a review of the current competence requirements for registration.

As the successful bidder, Capita Gas Registration and Ancillary Services (CGRAS) is required to deliver an evidence-based report to HSE on the current competence regime. Conclusions from the report may be developed and implemented for the improvement of gas safety for the purposes of the Gas Safety (Installation and Use) Regulations 1998 (and any reference in these Terms of Reference to 'gas safety' is to be construed accordingly).

The review will focus solely on gas competence in relation to registration requirements and its impact on the delivery of safe gas work and consumer gas safety.

2. Objective

Competence is currently assessed, managed and delivered primarily through the ACS system, with a set of core qualifications supplemented by appliance-specific assessments. Accreditation of the competency framework is underpinned by ISO 17024. Other routes to competence via recognised and certificated training and assessment e.g. limited scope, in-house solutions; CPD etc. will also be examined in this context.

The Review will provide an opportunity to solicit feedback from a wide variety of stakeholders, consumers and other interested parties to establish viewpoints on the relevance and effectiveness of the current requirements. This feedback will inform the Review as to options for changes to the current regime.

The review will:

- Investigate and record the current prerequisites for gaining a gas safety competence award and assess their ongoing suitability
- Engage with and consult (using a variety of tools including surveys, workshops and face to face discussion) those involved in, or affected by, the current arrangements to assist in identifying best practice and proposals for changes, including how any changes may impact upon the industry
- Review how the current arrangements surrounding competence contribute to gas safety and assess if and how any changes may affect this e.g. create additional benefits
- Present practical options for consideration along with an analysis of the benefits and implications of each option

3. Scope

The report will gather information and views from all relevant stakeholders willing to participate and present an independent view of the existing Competence environment as it relates to gas safety. It is not intended to be an all-encompassing review of the broader skills sector, although some of this information will be used to provide context.

Gas Safe Register will co-ordinate and facilitate the review but will not have undue influence on the direction taken or the overall report conclusions.

The final report will be presented to the **Competence Review Panel** (which is made up of representatives' from the Strategic Management Board for Gas Safety Competency) who will retain the authority to decide on any implementation.

The review was requested by the HSE and as such extends to territories in Scotland, England & Wales although it is recognised that other territories, e.g. Northern Ireland, Isle of Man and states of Guernsey may provide additional information.

Simon Ayers will act as Project Director to oversee the running of the review and the presentation of the proposals.

9. Terms of Reference cont.

The core team will comprise resources from within Gas Safe Register.

The core team will head the review and rely on input from a Competence Review Working Group (CRWG) that will be made up of Gas Safe Register and Capita colleagues with a range of skills and experience.

Individuals with specialised skill set areas may be called on at varying stages. At all times those involved must ensure that objective and accepted processes to elicit feedback and evidence-based support for any options are used.

The CRWG will meet not less than once a month for the duration of the review.

The Competence Review Panel will be made up of representatives' from the Strategic Management Board for Gas Safety Competency.

The Project Director will meet with the Competence Review Panel regularly throughout the project, and at least once every quarter, to update on progress.

4. Governance

Governance of the review will be provided by the Competence Review Working Group (CRWG) who, as well as inputting to the various stages of the project, will ensure business consistency, appropriateness, accountability and transparency in their involvement in the review;

- The core team will provide weekly feedback to the CGRAS Chief Executive and monthly feedback to the Senior Management Team of Gas Safe Register.
- The Competence Review Panel will monitor progress against the project plan and provide input and comment as appropriate.

The review will commence in autumn 2010 with a view to delivering a final report by autumn 2011. This will be subject to any dependencies as identified.

Annex – Extract from Service Concession Agreement

Extract from Service Concession Agreement - Schedule 1: Services.

21. Competence Review
    - 21.1. Provider shall undertake a review of the Competence requirements for Registration;
    - 21.2. the review shall address, as a minimum, the following matters:
        - 21.2.1. whether the many appliance-specific assessments are essential to ensuring gas safety;
        - 21.2.2. whether the current prerequisites for gaining a gas safety Competence award are adequate, or too onerous;
        - 21.2.3. whether those prerequisites should be recorded within the competency record;
        - 21.2.4. whether ISO 17024 should remain the underpinning standard for measuring Competence;
        - 21.2.5. whether a risk-based inspection process can be part of the overall competency management system;
        - 21.2.6. who has legal responsibility for the measure of Competence;
        - 21.2.7. the process by which competency standards are set and changed;
        - 21.2.8. the potential development of an authoritative industry code of practice for safe gas work; and
        - 21.2.9. potential changes to the Regulations and other legislation concerning gas safety.
    - 21.3. Provider shall develop and obtain HSE's agreement, not unreasonably withheld or delayed, to a detailed plan for undertaking the review, such plan to take account of the following broad timetable and timings:
        - 21.3.1. the review shall take 12 months; and
        - 21.3.2. will commence within 18 months of Services Start Date.
    - 21.4. Provider shall deliver to HSE a final report containing:
        - 21.4.1. proposals for a competency management system which reflect the findings of the review;
        - 21.4.2. a clear pathway for delivering each proposal; and
        - 21.4.3. a cost/benefit analysis of each proposal for HSE and industry.

Review of Competence Requirements for Registration

Competence Review

Provider shall undertake a review of the Competence requirements for Registration

The review shall address, as a minimum, the following matters;

- Whether the many appliance specific assessments are essential to ensuring gas safety;
- Whether the current prerequisites for gaining gas safety competence award are adequate, or too onerous;
- Whether those prerequisites should be recorded within the competency record;
- Whether ISO 17024 should remain the underpinning standard for measuring competence;
- Whether a risk based process can be part of the overall competency management system;
- Who has legal responsibility for the measure of competence;
- The process by which competency standards are set and changed;
- The potential development of an authoritative industry code of practice for safe gas work; and
- Potential changes to the Regulations and other legislation concerning gas safety.

5. Methodology & Timetable

Phase 1 will include;

- Agreement of terms of reference, project plan and timetable
- Define the extent of the scope
- Development of a stakeholder map including all interested parties
- Agree communications principles
- Complete initial collation of high level feedback from participants.

Phase 2 will include;

Engagement Plan

- Initial communication and launch of key focus areas to stakeholders
- Stakeholder events, workshops, focus groups, meetings (groups and 1:1) to verify and test initial feedback. Group sessions will be facilitated and scribed. Individual meetings will be conducted via a structured questionnaire
- Use of websites and the monthly magazine to aid consultation/communications with consumers, gas and related businesses, industry associations and government departments
- Research undertaken with gas scheme registrants and associated stakeholders
- Validation and playback of research to relevant stakeholders

Reviewing the current legislation

- Awarding bodies
- ISO 17024 as the underpinning Standard
- Use of other standards (e.g. EN45011) as benchmark for accreditation
- Legal responsibility for the measure of Competence
- Appropriateness of the current prerequisites

Phase 3 will include;

- Analysis of phase 2
- Developing core options for presentation and consideration
- Impact assessment
- Validation and playback of analysis to stakeholders

Phase 4 will include;

- Draft report production based upon review and options for consideration
- Feedback session with HSE
- Final report production
- Deliver report to HSE/ Strategic Management Board for consideration.

9. Terms of Reference cont.

Phase timetable

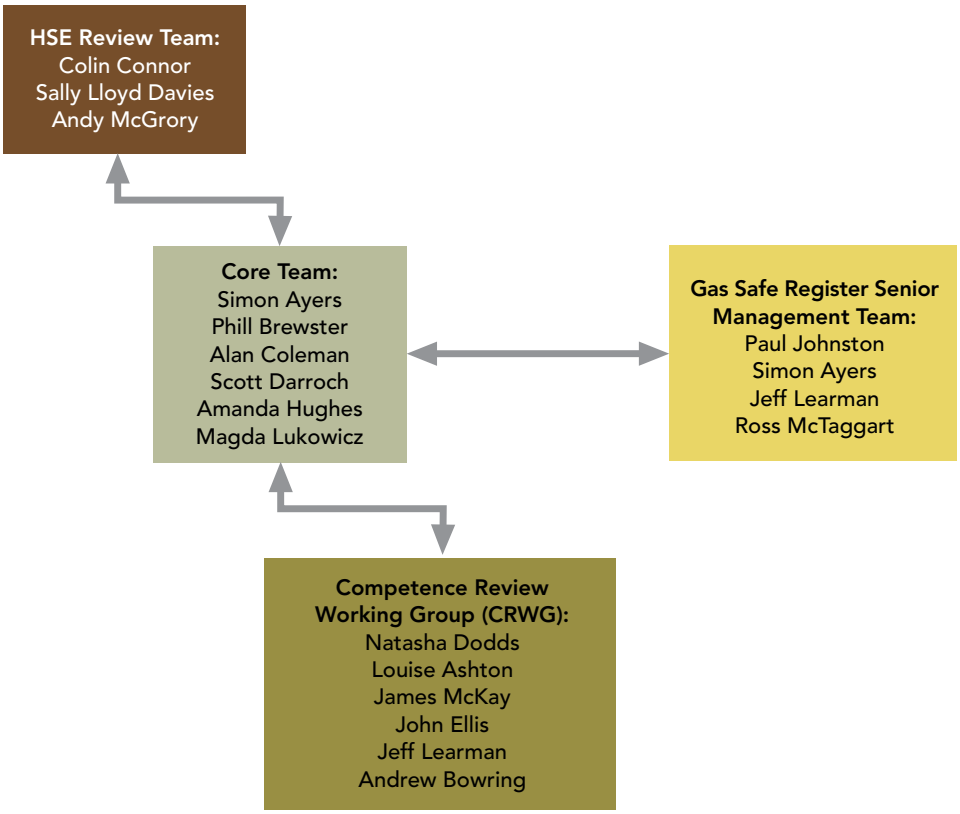
Phase	Dates	Stage	Actions
1	Sept – Nov 2010	Planning and preparation	Initial meetings to agree TOR and costs. Confirm phase 1.
2	Nov – Jan 2010	Consultation, exploration and challenging	Workshops, focus groups, 1:1 meetings
3	Jan – May 2011	Formulate final proposals Complete cost-benefit analysis	Check legality Impact assessment
4	May – Oct 2011	Reporting and writing	Presentation of report

Communication principles

Item	Task	Date
1	Project Start	13/09/2010
2	Communications Plan Produced	By 30/09/2010
3	SMB Meeting - Setting of TOR	30/09/2010
4	E-mail update to all registered businesses	01/10/2010
5	Scope for RGE Article as required	01/10/2010
6	General Press Release - RGE Article (October Issue)	01/10/2010
7	Initial Communication to Registered Businesses - part of scheduled email communication to registered businesses	01/10/2010
	Send out Invitations - letter/email to registered businesses and other identified audiences	01/10/2010
8	Gas Safe Partnership News	18/10/2010
9	Scope for RGE Article as required	01/11/2010
10	Follow-up piece on workshop invitations in RGE (November Issue)	01/11/2010
11	Q1 Brief to HSE	30/11/2010
12	Scope for RGE Article as required	01/12/2010
13	Gas Safe Partnership News	18/12/2010
14	Scope for RGE Article as required	01/01/2011
15	Distribute Survey to all	31/01/2011
16	Scope for RGE Article as required	01/02/2011
17	Promotion of survey in RGE/associated trade press	01/02/2011
18	Send Invitations to validation workshops	08/02/2011
19	Gas Safe Partnership News	18/02/2011
20	Summary of activity in RGE (client approved)	28/02/2011
21	Q2 Brief to HSE	28/02/2011
22	Scope for RGE Article as required	01/03/2011
23	Scope for RGE Article as required	01/04/2011
24	Gas Safe Partnership News	18/04/2011
25	Scope for RGE Article as required	01/05/2011
26	Scope for RGE Article as required	01/06/2011
27	Q3 Brief to HSE	07/06/2011
28	Gas Safe Partnership News	18/06/2011
29	Scope for RGE Article as required	01/07/2011
30	Scope for RGE Article as required	01/08/2011
31	Gas Safe Partnership News	18/08/2011
32	Scope for RGE Article as required	01/09/2011
33	Submit Report to HSE	26/09/2011

6. Appendices

Appendix I: Governance Reporting Structure Competence Review Working Group

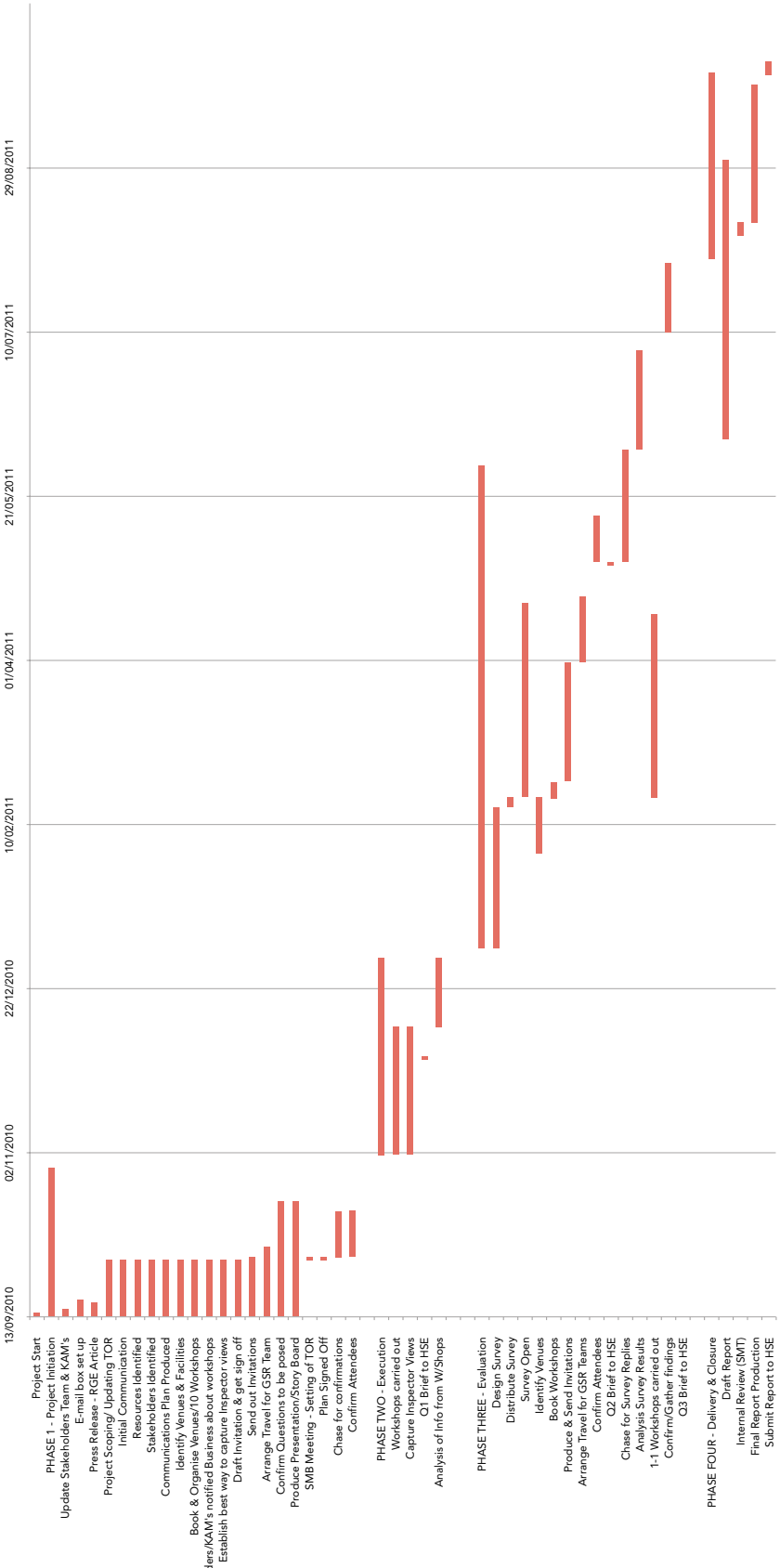


Responsibility	Individual / role
IT systems	Provide ideas and IT support for the development of the proposals working closely with the PM and the operations team. To ensure adequate systems support for the final proposal delivery.
Operations	Have overall responsibility for the delivery of the proposal endorsed by the HSE.
Stakeholder engagement	Support the project team in ensuring that all stakeholder groups are engaged appropriately.
Financial/ Economist	Undertake cost/benefit analysis of options and contribute to any impact assessment.
Analysis and risk	Develop analytical processes that enables the analysis of views and ideas from stakeholders. To manage the data from surveys and to analyse risk to both GSR and HSE.
Legal	Provide legal advice on options and ensure proposals are legally robust.
Marketing	Provide marketing and PR support and a communications plan.
Admin support	General administrative support and meeting / travel arranging and booking facilities.
Web site	Assist with development of various communication options linked across multiple web sites.
Facilitation	Facilitation at key workshops involving stakeholders. Dependant on the number of workshops held.
Core Team Sponsor	Run and coordinate the review and proposals.
Core Team Manager	Management support.

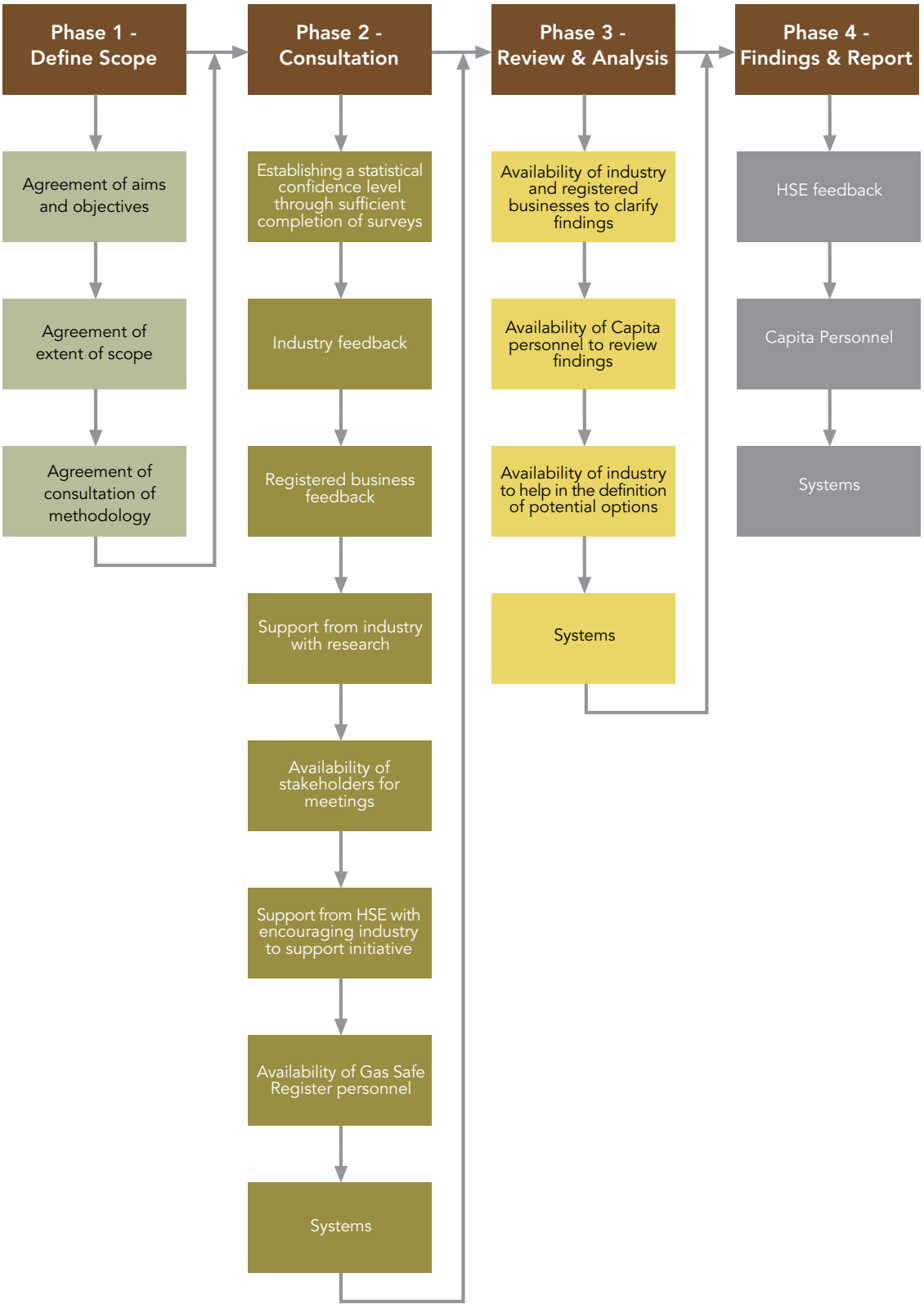
In line with the Concordat between CGRAS and HSE, HSE legal advisors will consider the report at the end of the review. They may also provide legal support to the HSE Review Team on a request for guidance basis.

9. Terms of Reference cont.

Appendix II: Project Plan



Appendix III: Dependencies



10. Appendices

Appendix 1 - Contents of Appendices

1. Contents of Appendices
2. List of Abbreviations/Acronyms
3. Definitions of Industry Bodies

IMPORTANT NOTE

Appendices A. to K. are contained in electronic format for reference. Please refer to the electronic zipped folder 'Competence Review Appendices A. to K.'.

A. E&U Skills 'Group Certification Scheme (GCS) Operations Document'

B. Qualifications Credit Framework (QCF) – Specific Gas Utilisation Requirements

C. Accreditation Bodies (AB) and Certification Bodies list

D. On-line Survey; Questionnaire

E. On-line Survey; PowerPoint presentation results (6580 responses)

F. On-line Survey; ALL Comments (10 open ended questions)

G. On-line Survey; Comment CODING

(A desk-based analysis of these verbatim comments was undertaken by Market Research specialists and comments organised into representative and themed summary statements to reflect the balance of the views expressed).

H. ACS Guidance Note for Certification Bodies No. 4 (was No. 8)

Hi. ACS Guidance Note for Certification Bodies No. 8a

I. EU Skills; New entrants into Downstream Gas Industry Survey

J. ACS List (117 assessments in total)

K. Downstream Gas Qualification Framework

Appendix 2 - List of Abbreviations/Acronyms

ACS; Nationally Accredited Certification Scheme for Individual Gas Fitting Operatives

OFQUAL; Office of Qualifications and Examinations Regulation

APHC; Association of Plumbing and Heating Contractors

ARGI; Association of Registered Gas Installers

BPEC; British Plumbers Employers Council

CB; Certification Body (also known as an 'Awarding Body')

CEDA; The Catering Equipment Distributors Association

CESA; The Catering Equipment Suppliers Association

CIPHE; Chartered Institute of Plumbing and Heating Engineers

ERS; European Certification Scheme

EU Skills; Energy & Utilities Skills

HHIC; Heating and Hot Water Council

ICOM; ICOM Energy Association

IGEM; Institution of Gas Engineers and Managers

MAMCOP; Meter Asset Managers code of practice

NICEIC; National Inspection Council of Electrical Installation Contractors

OPGO; Organisation of Professional Gas Operatives

RIDDOR; Reporting of Injuries, Diseases and Dangerous Occurrences Regulations

SFA; Skills Funding Agency

SLEAT; The Society of Laundry Engineers & Allied Trades Ltd.

SNIPEF; Scottish & Northern Ireland Plumbing Employers Federation

UKAS; The United Kingdom Accreditation Service

UKLPG; United Kingdom Liquefied Petroleum Gas

10. Appendices cont.

Appendix 3 - Definitions of Industry Bodies

Below are brief explanations of the various bodies involved with gas safety competence:

The United Kingdom Accreditation Service (UKAS)

UKAS was formed in 1995; it has a turnover of £20M and employs 180 permanent staff, plus 800 subcontractor assessors and technical experts. It is the only UK government recognised accreditation body. It will assess organisations that provide certification, testing, inspection and calibration against internationally recognised standards. It is a non-distributing private company independent of Government. Its accreditation activities ensure that consumers, suppliers, purchasers and specifiers can have confidence in the quality of goods and services.

Accreditation by UKAS means that an organisations operation has undergone an independent assessment by an accredited third party assessor against relevant standards. UKAS accreditation is ongoing not a one off. Anything can be assessed – products, equipment, people, management systems or whole organisations.

Standards Setting Organisation (SSO)

An SSO primary activity is to produce technical standards via developing new, or amending and re-issuing existing. Most of these standards will be voluntarily adopted by those it affects and not be mandated by law. However some will become mandatory when adopted by a regulator as a legal requirement.

E&U Skills

EU Skills is the SCC for the gas, power, waste management and water industries. They also receive their funding from Government via UKCES, employers, stakeholder trade associations and own activities. They produce the sectors National Occupational Standards.

A major aspect of EU Skills focus is 'gas utilisation' which covers the installation and maintenance of gas-fired appliances in homes, commercial and industrial premises. This part of the gas industry employs 123,700 people (figure from EU Skills Nov 2011). Key skill development at this time include, improving energy efficiency via highly efficient appliances, equipment and controls, and new technologies including CHP units.

EU Skills is licensed by Government to develop gas apprenticeships in the UK nations. They also specify the content, and are the issuing authority for apprenticeships in England and Wales.

United Kingdom Awarding Bodies

There are 120 Awarding Bodies (listed on the National Database of Accredited Qualifications), some will specialise in NVQs. These bodies are regulated in England by the: Qualifications and Curriculum Authority (QCA), in Northern Ireland the Council for the Curriculum, Examination, and Assessment (CCEA), and Wales the Qualifications, Curriculum and Assessment Authority DELLS).

In the UK, in order for a qualification to be recognised as a part of the NQF, and be transferable between occupations, it must be accredited through a United Kingdom Awarding Body. A qualification from an Awarding Body always has nine levels (entry – level 8 which is a Doctorate). An Awarding Body does not always provide courses for a qualification, but will provide an approved process for independent training providers to follow.

Sector Skills Councils (SSC's)

SSCs cover specific economic sectors in the United Kingdom; there are a network of 22 SSCs including E & U Skills (sector - electricity, gas, waste management and water industries) and Summit Skills (sector – building services engineering inc. plumbing, heating, ventilation). SSCs are licensed by the Government through the UK Commission for Employment and Skills (UKCES).

SSCs and UKCES are committed to working in partnership across the UK to promote employer investment in skills which will encourage enterprise, create jobs, and sustain economic growth. Both SSCs and UKCES share a belief in the 'sectoral way' and cover 90% of the economy. This network of licensed SSCs helps employers and government to address skill needs within and across sectors. SSCs help to achieve their aims by helping to develop sector National Occupational Standards.

Individual SSCs are represented by the Alliance of Sector Skill Councils.

UK Commission for Employment and Skills (UKCES)

UKCES was founded in 2008 and supersedes the former Sector Skills Development Agency and the National Employment Panel. It is the coordinating body for Sector Skill Councils. In April 2010 it assumed responsibility for 'Investors in People'. UKCES commissioners are experts from business, trade unions, education, employment and skills.

UKCES are committed to: Win the economic argument for investment in skills. Enhance the value and accessibility of vocational training especially apprentices. Encourage sectors to improve skills. Work with sectors to create more and better jobs.

Summit Skills

Summit Skills is the SSC for the Building Servicers Engineering (BSE), representing the electro- technical, heating, ventilating, air conditioning, refrigeration and plumbing industries. They receive their funding from Government via the UKCES, employers, stakeholder trade associations and own activities.

Summit Skills work with BES employers, stakeholders and partners to ensure that those who work in the sector all have the right skills to enable them to be efficient, effective to increase sector productivity. To fully represent the views of the sectors employers, Summit Skills co-ordinates employer led interest and implementation groups who discuss skills and training issues in their industries.

Summit Skills produces the sectors National Occupational Standards, and also determine the qualifications the sector needs to train apprentices and develop existing workers. Via regular research they provide a comprehensive forecast of skill demands across the UK in this sector.