

# **Guide to LPG Training & Assessment**

National  
Accredited Certification Scheme  
(ACS)

*January 2007*

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## 1. Introduction

The Accredited Certification Scheme, or ACS, is the nationally recognised qualification for those working with Liquefied Petroleum Gas (LPG).

The ACS relevant to the marine industry comprises three parts:

- Generic LPG Core (CCLP1)  
Contains 14 Common Core Competencies relating to general domestic gas safety
- Specific LPG Sector Core  
Sector-specific Core for Boats, Yachts & Other Vessels (CCLP1/B) contains 5 Competencies
- Appliances  
For example, cookers, warm air heaters, refrigerators, etc.

Further details of these competencies can be found in section 14 of this guide.

## 2. Who Should Apply for Assessment?

Anyone who carries out gas work within the definition and scope of the Gas Safety (Installation and Use) Regulations 1998 (GSIURs) and within the range of gas work that they do.

GSIURs (Reg 2.1) define ‘work’ – in relation to a gas fitting includes any of the following activities carried out by any person, whether an employee or not, that is to say –

- a) installing or re-connecting the fitting;
- b) maintaining, servicing, permanently adjusting, disconnecting, repairing, altering or renewing the fitting or purging it of air or gas;
- c) where the fitting is not readily moveable, changing its position; and
- d) removing the fitting.

The regulations Reg 2.1 also defines a ‘gas fitting’ as pipework, valves (other than emergency controls), regulators and meters, and fittings, apparatus and appliances designed for use by consumers of gas for heating, lighting, cooking & other purposes for which gas can be used (other than the purpose of an industrial process carried out on industrial premises).

Having decided that in the course of your business one or more of these activities are carried out, then any operative who carries it out must be competent to do so.

Competence is deemed to be demonstrated when the operative has been issued with a certificate of competence for that area of gas work by a certification body which has been accredited by the United Kingdom Accreditation Service (UKAS) and having successfully completed an assessment at an assessment centre which has been approved by an accredited certification body.

### **3. Relationship Between Training and Assessment**

Assessment is not dependent upon completing a programme of training beforehand, the choice of whether to attend a training course or to complete a 'home study learning pack' is a personal or preferred choice, depending on how you and/or your operatives have kept up to date with industry developments, changes to legislation, standards and to working practices and procedures.

Consideration may be given to undertake training if for example an operative is planning to move into new areas of gas work of which he/she is not familiar or has not kept themselves updated or have allowed their practical skills to lapse.

The scheme only assesses matters of gas safety, so therefore it is very focused on the competencies affecting gas safety only. Other gas fitting competencies such as plumbing, building and electrical work are not covered by ACS assessments.

In addition to holding a certificate of competence for the area(s) of gas to be carried out, gas fitting operatives working on hire, residential or business craft are, to quote the GSIURs Reg. 3, Guidance 43, required to be in membership of a 'class of persons' approved by the Health and Safety Executive (HSE).

The regulation goes on to say that all gas installation businesses, including self employed gas installers, are required to be in membership of a 'class of persons' approved by the Health and Safety Executive (HSE), whether they carry out such work as their main or part activity. Gas fitters who are employed by a member of an approved 'class of persons', but who carry out separate work on their own behalf, need to be in membership of such class of persons, ie Corgi registered in their own right.

### **4. When to Apply for Assessment**

Operatives need to apply for assessment:

- Before carrying out any gas work for which they do not hold a valid certificate of gas safety competence.
- Before the expiry date of an existing certificate of gas safety competence.
- In sufficient time to ensure that assessment can be successfully completed and for the certification body to issue a certificate of competence, either before gas work is carried out or an existing gas safety certificate expires.

### **5. Applying for Assessment**

Application for assessment is normally made directly to the assessment centre of your choice. However if you are uncertain as to which assessment centre to choose, contact should be made to any one of the accredited certification bodies. A list of certification bodies is given on the Corgi website at:

<http://www.trustcorgi.com/gasqualifications/ACSCertificationBodyContacts.htm>

(Please note that free registration on the site is necessary to access this information).

Both certification bodies and assessment centres are currently advertising their services in a range of trade publications in addition to 'The Gas Installer'. You should ensure that your chosen assessment centre is approved to offer the specialism you require, eg LPG on Boats (CCLP1/B).

BMF have also compiled a list of centres offering training and assessment for LPG on Boats. Please follow the LPG links from the BMF website [www.britishmarine.co.uk/training](http://www.britishmarine.co.uk/training) or contact the Training Department on 01784 473377 or [training@britishmarine.co.uk](mailto:training@britishmarine.co.uk).

It is important to note that:

- Assessment centres carry out assessments on behalf of the certification body that approved them to do so and that the certificate will be issued by the certification body and not the assessment centre.
- Assessment centres must not insist that training is carried out before assessment.
- Assessment centres must not imply that if training is carried out at that centre the candidate will have any advantage over candidates who have not been trained in the centre or by one of its agents.
- Standards of customer service are the responsibility of the assessment centre and the certification body.

The assessment centre will provide applicants with an application form which must be fully completed by the applicant. The form will typically ask for:

- Name and address
- You or your business's Corgi registration number
- Recent passport size photograph(s)
- Valid pre-requisite certificates of competence
- National Insurance number
- Date of birth
- The gas safety assessments being applied for

In addition applicants are required to provide details of their industry experiences and qualifications as the scheme places applicants into three categories:

**Category 1** – applicants who are experienced gas-fitting operatives who are seeking to renew expired or expiring certificates of gas safety competence i.e. HSC, ACoP, ACS or Gas Services N/SVQ's, or are seeking assessment and certification to extend their range of gas work.

**Category 2** – Candidates have to provide evidence that qualifications are held which are relevant to the area(s) of gas work where they are seeking to acquire certification. These qualifications must show that competence has been achieved in the generic work activities associated with fossil fuelled appliances/equipment and/or pipe work installation, including any of the following work activities, flueing or ventilation or the installation, maintenance or commissioning of such appliances. Examples of appropriate qualifications include: Plumbing craft qualification or N/SVQ, Pipe Fitter/Welder craft qualification or N/SVQ, Heating and Ventilation craft qualification or N/SVQ or Refrigeration Engineer/Fitter craft qualification or N/SVQ.

In addition to appropriate qualifications candidates need to provide *written* evidence confirming that on-the-job gas installation and/or maintenance training has been undertaken and that any experience of gas work gained has been carried out under the *direct supervision* of a competent operative, employed by a Corgi registered company. Such *written* evidence will need to be provided from the employer and detail precisely the areas of gas work undertaken.

**Category 3** – These candidates are new entrants into the gas industry and are unable to provide details of relevant qualifications and/or experience. These will be individuals who are classed as entering the industry for the first time, or changing career direction. Candidates in this category should be advised to seek training and experience that will result in the attainment of a National/Scottish Vocational Qualification (N/SVQ) in Gas Services, Installation and Maintenance at Level 2 or 3, or obtain employment with a Corgi registered business who is willing to provide an auditable extended period of company in-house gas training programme together with the necessary organisational support prior to undertaking ACS assessment. The duration and content of the training programme will be determined by the scope of gas work being undertaken. Evidence in the form of a portfolio following completion of such training must be presented to the assessment centre before a candidate can undertake assessments. Alternatively an N/SVQ within the Mechanical Engineering Sector with related on the job gas training and experience in the intended areas of gas work to be carried out will also support a future application.

## 6. Preparing for Assessment

It has been previously mentioned that training is not a pre-requisite to taking assessment and that it is a matter of personal choice and preference. However it is fair to say that without proper preparation the outcome of any job is likely to be unsuccessful, in particular the process and thought of taking an assessment can bring additional pressures on applicants, therefore we recommend preparing fully for assessment.

- Find out whether the assessment centre offers and runs assessment preparation sessions.
- Find out whether certification bodies and/or assessment centres provide written support and advice documents.

Carry out a self-analysis of what practical skills and knowledge and understanding the applicant currently has in the areas of gas work the assessment will cover and compare this to the assessment criteria. Copies of the assessment criteria are available from Corgi – telephone 0870 401 2200. If there is a skills or knowledge and understanding gap, decide how best to fill it, eg: a training course, a programme of home study, or if there is no gap and the applicant is confident of passing the assessment – apply to an assessment centre.

Additionally there are a number of publications that may be of use when preparing for assessment:

- Gas Safety (Installation and Use) Regulations 1998 – HMSO
- PD 5482-3:2005 Code of practice for domestic butane and propane gas-burning installations. Part 3 Installations in boats, yachts and other vessels.
- BS EN ISO 10239:2000 Small craft - Liquefied petroleum gas (LPG) systems (under revision)
- Corgi Liquefied petroleum Gas (including Caravans and Boats)
- Corgi Essential Gas Safety
- Viper Domestic LPG Handbook Permanent Dwellings and Viper BS 5440 Parts 1 & 2 2000
- CITB Work books

## 7. Taking the Assessments

Frequently asked questions by applicants:

### **Where will the assessment be carried out?**

Normally the assessment will be carried out in a centre that has been approved by a certification body specifically for the purpose of conducting scheme assessments. In certain circumstances assessments may be conducted on-site, providing that the site has been previously approved by the certification body as being suitable for assessment.

### **Who will conduct the assessment?**

The assessment will be conducted by a competent assessor (the scheme defines a competent assessor as one who holds a certificate of competence in the area of gas work being assessed and in assessing candidate performance, this is demonstrated by the assessor possessing an appropriate ACS certificate and TDLB A1 certificate). The assessor will be appointed by the assessment centre and approved by the certification body.

### **What methods of assessment will be used?**

All gas safety assessments will be assessed using a combination of:

#### **a Assessing Performance**

That is, doing the practical aspects of the job to the requirements of current legislation and standards applicable at the time of the assessment. This will be achieved by the assessor watching the applicant carry out these tasks and recording what he/she has or has not done. The practical tasks will be no more than those required to carry out the gas work under normal working conditions.

The certification bodies will design the practical assessment around the Corgi assessment criteria. The practical competencies are assessed in four sectors:

- Installation
- Ventilation
- Gas Controls
- Flues

An operative who is experienced in this area of work should find the assessment no more challenging than working on this type of appliance in customers' premises.

## **b Assessing Knowledge and Understanding**

This will be done in three ways:

- By answering pre-set written questions using reference documents provided by the assessment centre (this is known as Open Book). The kinds of reference documents used include; Gas Safety (Installation and Use) Regulations, British/European Standards, The Industry Unsafe Situations Procedures and manufacturer's instructions.
- By answering pre-set written questions without being able to use reference documents (this is known as Closed Book). The number of closed book questions in each assessment is approximately 10% of the open book questions.
- By answering oral questions posed by the assessor. These questions may be asked, during or on completion of the practical assessment or at any time the assessor needs to clarify your knowledge or understanding of a particular part of the assessment.

The way the theory and practical questions are set is dependent on the certification body. Theory questions may be turned into practical elements but practical may not be turned into theory.

## **8. What is the Pass Mark?**

The pass mark is 100% for both practical and for knowledge and understanding parts of the assessment. This initially may appear to be harsh, but let's remember the assessment is only measuring **matters of gas safety** therefore there is no room to allow someone to be 50%, 60% or even 80% competent in safety matters, so all assessment criteria has to be met.

## **9. During the Practical Assessment**

Candidates will have available to them a range of documents that they could have with them when carrying out gas work in the normal course of their business, eg manufacturers instructions, Corgi manual, The Unsafe Situations Procedures and British standards.

Providing candidates are experienced and prepared in the areas of gas work being assessed and can effectively use these reference documents, there is no reason why they should not pass this part of the assessment.

If the candidate does not demonstrate competence in all of the performance criteria, the assessor has the discretion to either ask the candidate oral questions or request the candidate to repeat those performance criteria. This process builds in a high degree of flexibility to assist a competent operative achieve the 100% mark.

## 10. During the Written Assessment

During the open book written assessments, candidates will have available to them as previously mentioned a range of documents to refer to and find the correct answer. 90% of questions come into this category of questions. Closed book questions do require candidates to answer questions without reference to documents.

If however a candidate answers between 80% and 90% of questions right at the first attempt, the candidate is said to be **referred**. The assessor has the discretion to orally question the candidate on those questions originally answered incorrectly. If a candidate scores less than 80% the candidate is again said to be referred, that is to say he/she can be given the opportunity to reattempt those questions answered incorrectly in writing again.

So you can see, there are a number of steps in the assessment process that supports the candidate to achieve the 100% result.

## 11. How Long Will Each Assessment Take?

The Generic LPG Core and Sector Specific Core (CCLP1/B) assessment must be completed before any assessments for appliances are taken.

The duration of each assessment will vary depending on the candidate and which assessment is being taken. Typically, the core assessment will take two days to complete and the majority of appliance assessments can be completed in less than half a day each.

## 12. Assessment Results

At the completion of an assessment(s) the centre will mark and score the assessment. At this stage of the process, the assessment centre can only advise a candidate that they are going to make a recommendation to the certification body to either issue or not to issue a certificate of competence to the candidate. The reasons that the assessment centre cannot tell the candidate for definite the assessment result is because:

- The assessment documentation, when it has been completed by the assessor, has to be verified by the assessment centre's internal verifier. The internal verifier must be satisfied that the assessment has been conducted correctly and fairly in accordance with the requirements of the certification body.
- Only the certification body can make a decision whether or not to issue a certificate of competence. That decision is based on the assessment evidence presented to the certification body by the assessment centre.

The rules of the scheme do not allow certification bodies or assessment centres to issue temporary or interim certificates of competence to candidates.

Some certification bodies however issue an assessment result notification to candidates, but this notification must make it very clear that it is **not a certificate of competence. Neither Corgi nor the HSE will accept this notice as a means of a candidate demonstrating competence.**

The ACS certificate is valid for 5 years.



### **13. Information Provided by Certification Bodies to the National Database**

When the certification body has come to a decision to issue a certificate or not, it has to transmit the assessment result details via electronic data transmission to a register known as the National Database of Individual Gas Fitting Operatives which is operated and maintained by Corgi.

Only certification bodies can input assessment data to the register. Any statistical assessment information published by Corgi regarding assessment performance and results is taken directly from the register and therefore will always be current, technically correct and accurate. It is the only reliable and dependable information source of ACS results data.

### **14. Assessment Criteria**

#### **Generic Domestic LPG Core CCLP1**

This generic part of the gas safety assessment is common to all LPG sectors and comprises fourteen competencies:

1. Characteristics of LPG
2. Cylinder location, safety requirements and sizing
3. LPG supply pressures, operation of and positioning of emergency isolation, flow controls and valves
4. Gas emergency actions and procedures
5. Identification of unsafe situations and use of emergency notices
6. Installation of pipework and fittings
7. (ii) Soundness test LPG installations in boats, yachts and other vessels
8. LPG safety legislation
9. Characteristics of combustion of LPG
10. The operation and checking of LPG appliance safety devices/controls
11. Flueing standards for LPG appliances
12. Flue testing
13. The installation of open, closed, balanced and fan assisted flue assemblies
14. Re-establishing existing LPG supplies and re-lighting appliances

Plus specific core competencies relating to Boats (16-19 & 22):

16. Cylinder locations and safety requirements
17. Installation of LPG pipework and fittings
18. Ventilation requirements for LPG appliances
19. Flueing standards for LPG
22. Re-establishing existing LPG supplies and re-lighting appliances

Plus applicable domestic appliances:

- Boat Warm Air Heaters
- Gas Cookers
- Gas Fires & Heaters
- Instantaneous Water Heaters
- Laundry Appliances
- Wet Central Heating
- Ducted Air Heaters
- Leisure Equipment
- Domestic Gas Meters
- Range-Cooker Boilers
- Forced Draught Gas Burners

Please see the complete assessment criteria documents for full details.

*Please note that these assessment criteria were published by Corgi in January 2007 and were correct at the time of publishing this guide.*