

NVQ in Domestic Natural Gas Installation and Maintenance (6012 and 6034)

Centre Guide and Assessment Strategy



www.cityandguilds.com
April 2009
Version 1.0

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Qualification title	Number
NVQ in Domestic Natural Gas (ACS Aligned)	6012
NVQ in Domestic Natural Gas	6034

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Foreword

National Vocational Qualifications (NVQs) are fundamental to the drive to increase the skills of people working in a wide range of industries. Developing the skills of each individual, wherever they work, and whatever they do, fulfils a basic individual need for personal growth. Developing individual skills also fulfils the needs for organisations to be competitive and to succeed. It is a vital component for any business wishing for success, competing in domestic and world markets.

NVQs have been, and continue to be, developed for all industries, and are supported by government. They have been designed to provide valid and relevant vocational qualifications for people at work and are nationally and internationally recognised.

NVQs are about competent performance demonstrated in a particular task or skill, over a period of time.

Competence is being able to undertake an activity and understanding why it is carried out that way. It's not about practising something - it's about doing it. Competence comes after practice, or in other words competence indicates actual, and not potential, ability and skill.

The achievement of an NVQ has been seen to encourage employees to value their contribution to the workplace, and to develop their own skills and potential.

Each NVQ is made up of a number of 'Units' of competence'.

Each 'Unit' describes the standards of a broad area of work that a competent person should be able to perform. A detailed description with each unit explains what the unit covers.

Each 'Unit' is broken down into a number of 'Elements'. The elements show what needs to be done to achieve the whole unit.

The 'Elements' contain the 'National Standard of Work' (or 'Performance Criteria'), the related 'Knowledge and Understanding' and the 'Evidence Required' from Learners to demonstrate their competence.

Learners are expected to show competence in the appropriate mandatory and optional units of the NVQ.

When Learners have successfully completed the relevant units, the centre will be able to claim for their NVQ from City & Guilds and the appropriate NVQ certificate will be awarded.

1 Introduction to the qualifications

This document contains the information that centres need to offer the following qualifications:

Qualification title	NVQ in Domestic Natural Gas Installation and Maintenance (ACS Aligned)
City & Guilds qualification number	6012
Last registration date	31/12/2010
Last certification date	Level 2 (31/12/2012); Level 3 (31/12/2013)

Qualification title	NVQ in Domestic Natural Gas Installation and/or Maintenance
City & Guilds qualification number	6034
Last registration date	31/12/2010
Last certification date	Level 2 (31/12/2013); Level 3 (31/12/2013)

The Domestic Natural Gas NVQs are work-based qualifications designed for individuals working within the Installation, Maintenance and Emergency Service Operations sectors of the gas industry. There are two 'Schemes' within the Domestic Natural Gas NVQ framework. These are the 6012 Scheme and the 6034 Scheme.

6012 Scheme

The 6012 Scheme Awards cover both the installation and maintenance activities required within the sector. There is also a separate award that covers the gas emergency service sector of the industry.

This Scheme has been developed to align to the assessment requirements of the Nationally Accredited Certification Scheme for Individual Gas Fitting Operatives (ACS) in the areas of gas safety competence. This will enable operatives who hold a 6012 Domestic Natural Gas NVQ eligible to apply to become a member of one of the United Kingdoms Gas Registration Bodies without the need to undertake further independent ACS assessments in the areas already covered by the NVQ.

In addition, the 6012 Scheme has been developed to provide Appliance Pathway Routes (APR). These APR's allow Learners to prove competence in one or more specific categories of gas work, for example, central heating installation and maintenance, without the need to complete a 'Full Domestic Natural Gas NVQ' This development came in response to the request of employers within the gas industry.

6034 Scheme

The 6034 Scheme Awards cover either installation or maintenance activities required in the sector.

This Scheme is **not** aligned to ACS Scheme and therefore operatives are required to undertake further independent ACS assessments in the areas already covered by the NVQ prior to becoming eligible to apply to become members of the appropriate Gas Registration Body.

This guide aims to provide

- an overview of the structure of full Domestic Natural Gas NVQs (6012 and 6034 Schemes) together with the Appliance Pathway Routes available for 6012 Scheme
- an introduction to the assessment strategy for the 6012 and 6034 Schemes
- guidance notes for assessors and other centre staff for the 6012 and 6034 Schemes.

The following documentation is also available from City & Guilds for the 6012 and 6034 Schemes.

- Records of Assessments (RoA) document
- Sufficiency of Evidence (SoE) Sheets
- Knowledge & Understanding Question Papers
- Providing City & Guilds Qualifications - A Guide to Centre and Qualification Approval

This Centre Guide has been produced in conjunction with Energy & Utility Skills (EU Skills), the Sector Skills Council (SSC) for the gas industry, who developed the 'National Occupational Standards' for these NVQs.

This guide does **not** contain details of centre and scheme approval - these are given in the document: 'Providing City & Guilds Qualifications' available free of charge from the Sales Department or your Regional / National City & Guilds office.

General regulations and details of registration, certification procedures and fees are given on the catalogue pages of the City & Guilds Walled Garden. Information about City & Guilds can be accessed on the web site at: **www.cityandguilds.com**. Information on NVQs can also be accessed by subject on the Qualifications and Curriculum Authority (QCA) web site at **www.qca.org.uk** and the Office of the Qualifications and Examinations Regulator web site at **www.ofqual.gov.uk**.

2 Qualification structure

There are a number of **full** Domestic Natural Gas NVQs available. These are indicated below.

6012 Scheme (NVQs)

6012/02 Level 2 Domestic Natural Gas Installation and Maintenance (ACS Aligned - NG) - 100/1916/9

6012/03 Level 3 Domestic Natural Gas Installation and Maintenance (ACS Aligned - NG) - 100/1919/4

6012/04 Level 3 Gas Emergency Service Operations (ACS Aligned - NG) - **Complex Closed**

6012/44 Level 3 (Re-Certification) Gas Emergency Service Operations (ACS Aligned - NG) - **Complex Closed**

6012/05 Level 3 Gas Emergency Service Operations (ACS Aligned - NG) - 500/1538/2

6012/55 Level 3 (Re-Certification) Gas Emergency Service Operations (ACS Aligned - NG) - 500/1538/2

6012/06 Level 3 Gas Emergency Service Operations (ACS Aligned - NG & LPG) - 500/1538/2

6012/66 Level 3 (Re-Certification) Gas Emergency Service Operations (ACS Aligned - NG & LPG) - 500/1538/2

6034 Scheme

6034/01 Level 2 Domestic Natural Gas Installation - 100/1915/7

6034/02 Level 2 Domestic Natural Gas Maintenance - 100/1917/0

6034/03 Level 3 Domestic Natural Gas Installation - 100/1918/2

6034/04 Level 3 Domestic Natural Gas Maintenance - 100/1920/0

There are also a number of Appliance Pathway Routes (APRs), these APRs are 'Mini Awards' and result in an NVQ specific to a limited scope of gas work activities, these are:

6012 Scheme Appliance Pathway Routes (APRs – all ACS aligned)

6012/12 Level 2 Meters

6012/20 Level 2 Cookers and Laundry

6012/21 Level 2 Central Heating and Water Heating

6012/22 Level 2 Meters - **Complex Closed**

6012/23 Level 2 Pipework - **Complex Closed**

6012/24 Level 2 Space Heaters and Leisure

6012/25 Level 2 Warm Air and Water Heating

6012/13 Level 3 Meters

6012/30 Level 3 Cookers and Laundry

6012/31 Level 3 Central Heating and Water Heating

6012/32 Level 3 Meters - **Complex Closed**

6012/33 Level 3 Pipework - **Complex Closed**

A structural overview is now provided for each of the full NVQs and the Appliance Pathway Routes (APRs).

2.1 6012/02 Level 2 Domestic Natural Gas Installation and Maintenance

Mandatory Units

To achieve the full NVQ at Level 2 for this award, the following units **must** be assessed across the full range of pipework / appliance(s) / meter(s) categories specified.

- | | |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit 4 | Install natural gas system and components
Pipework
Cooking and Laundry
Space Heating and Leisure
Central Heating and Water Heating
Warm air and Water Heating
Meters |
| Unit 5 | Commission & decommission natural gas systems
Pipework
Cooking and Laundry
Space Heating and Leisure
Central Heating and Water Heating
Warm air and Water Heating
Meters |
| Unit 6 | Service and maintain natural gas systems and components
Cooking and Laundry
Space Heating and Leisure
Central Heating and Water Heating
Warm air and Water Heating
Meters |
| Unit 7 | Maintain safe working environment for all natural gas related work |
| Unit 8 | Establish, maintain and develop effective working relationships with others for all natural gas related work |
| Unit 10 | Apply Gas safety measures to domestic natural gas related work activities |

Successful completion of this award proves that Learners are competent to work installing and maintaining the full range of pipework / appliance(s) / meter(s) categories covered by the qualification.

2.2 6012/03 Level 3 Domestic Natural Gas Installation and Maintenance

Mandatory Units

To achieve the full NVQ at Level 3 for this award, the following units **must** be assessed across the full range of pipework / appliance(s) / meter(s) categories specified.

Unit 1	Design natural gas systems
Unit 2	Specify programmes for working on natural gas systems
Unit 3	Plan the work activities for natural gas systems and components
Unit 5	Commission & decommission natural gas systems Pipework Cooking and Laundry Space Heating and Leisure Central Heating and Water Heating Warm air and Water Heating Meters
Unit 7	Maintain safe working environment for all natural gas related work
Unit 8	Establish, maintain and develop effective working relationships with others for all natural gas related work
Unit 9	Contribute to the improvement of business products and services for natural gas related work
Unit 10	Apply gas safety measures to domestic natural gas related work activities
Unit 14	Install complex natural gas system and components Pipework Cooking and Laundry Space Heating and Leisure Central Heating and Water Heating Warm air and Water Heating Meters
Unit 15	Service and maintain complex natural gas systems and components Cooking and Laundry Space Heating and Leisure Central Heating and Water Heating Warm air and Water Heating Meters

Successful completion of this award proves that Learners are competent to work installing and maintaining the full range of pipework / appliance(s) / meter(s) categories covered by the qualification.

2.3 6012 Level 2 and 3 Appliance Pathway Routes (APR)

These APRs allow Learners to prove competence in one or more specific categories of gas work, for example, central heating installation and maintenance at either Level 2 or Level 3.

This flexible approach to certification of operatives came about after extensive consultation with employers in the domestic gas industry. APR's are designed for those operatives who undertake work across a limited range of activities for example, central heating and water heating installation and maintenance, or the installation and maintenance of cookers and laundry, etc.

The full list of APRs is earlier in this guide.

Mandatory Units - Level 2 APR's

To achieve an APR NVQ at Level 2, the following units **must** be assessed across the range of pipework / appliance(s) / meter(s) categories for the chosen APR.

Unit 4	Install natural gas system and components
Unit 5	Commission & decommission natural gas systems
Unit 6	Service and maintain natural gas systems and components
Unit 7	Maintain safe working environment for all natural gas related work
Unit 8	Establish, maintain and develop effective working relationships with others for all natural gas related work
Unit 10	Apply Gas safety measures to domestic natural gas related work activities

Mandatory Units - Level 3 APR's

To achieve an APR NVQ at Level 3, the following units **must** be assessed across the range of pipework / appliance(s) / meter(s) categories for the chosen APR.

Unit 1	Design natural gas systems
Unit 2	Specify programmes for working on natural gas systems
Unit 3	Plan the work activities for natural gas systems and components
Unit 5	Commission & decommission natural gas systems
Unit 7	Maintain safe working environment for all natural gas related work
Unit 8	Establish, maintain and develop effective working relationships with others for all natural gas related work
Unit 9	Contribute to the improvement of business products and services for natural gas related work
Unit 10	Apply gas safety measures to domestic natural gas related work activities
Unit 14	Install complex natural gas system and components
Unit 15	Service and maintain complex natural gas systems and components

On completing an APR, Learners are issued with a NVQ 'Mini Award' for that pipework / appliance(s) / meter(s) category. The NVQ 'Mini Award' Certificate and associated 'Certificate of Unit Credit' denote that the Learner is competent in the installation, servicing and maintenance of the chosen pipework / appliance(s) / meter(s) category (this includes commissioning and decommissioning).

'Certificates of Unit Credit' will **not** be issued unless **all** units required by the APR NVQ 'Mini Award' are completed.

After successfully completing one or more Appliance Pathway Route(s), Learners can continue to progress towards achieving a full NVQ, if required, but must provide additional evidence across the range of pipework / appliance(s) / meter(s) categories **not** covered on their chosen APR for the Units specified:

- 6012/02 Level 2 - Units 4, 5 and 6
- 6012/03 Level 3 - Units 5, 14 and 15

2.4 6012/05 and 6012/55* Level 3 Gas Emergency Service Operations

Mandatory Units

To achieve the full NVQ at Level 3 for this award, the following units **must** be assessed across the full range of pipework / appliance(s) / meter(s) categories specified.

Unit 5	Commission & decommission natural gas systems Pipework Meters
Unit 6	Service and maintain natural gas systems and components Meters
Unit 7	Maintain safe working environment for all natural gas related work
Unit 8	Establish, maintain and develop effective working relationships with others for all natural gas related work
Unit 10	Apply gas safety measures to domestic natural gas related work activities
Unit 11	Contribute to the control rectification and monitoring of gas emergencies
Unit 13	Commercial natural gas changeover unit for gas emergency service operations
Unit 14	Install complex natural gas system and components Pipework Meters

Successful completion of this award proves that Learners are competent to work in the gas emergency services operations sector of the gas Industry (natural gas only).

Optional Units

The following unit is optionally available for Learners who wish to extend their range of work to include liquefied petroleum gas (LPG):

Unit 12	Liquefied petroleum gas changeover unit for gas emergency service operations (Non ACS Aligned)
---------	------------------------------------------------------------------------------------------------

* Holders of 6012/04, 6012/05 or 6012/06 qualifications have the option to renew their NVQ with either a 6012/44 (Complex Closed), 6012/55 or 6012/66 qualification.

2.5 6012/06 and 6012/66* Level 3 Gas Emergency Service Operations

Mandatory Units

To achieve the full NVQ at Level 3 for this award, the following units **must** be assessed across the full range of pipework / appliance(s) / meter(s) categories specified.

Unit 5	Commission & decommission natural gas systems Pipework Meters
Unit 6	Service and maintain natural gas systems and components Meters
Unit 7	Maintain safe working environment for all natural gas related work
Unit 8	Establish, maintain and develop effective working relationships with others for all natural gas related work
Unit 10	Apply gas safety measures to domestic natural gas related work activities
Unit 11	Contribute to the control rectification and monitoring of gas emergencies
Unit 12	Liquefied petroleum gas changeover unit for gas emergency service operations
Unit 13	Commercial natural gas changeover unit for gas emergency service operations
Unit 14	Install complex natural gas system and components Pipework Meters

Successful completion of this award proves that Learners are competent to work in the gas emergency services operations sector of the gas Industry (natural gas and liquefied petroleum gas).

* Holders of 6012/04, 6012/05 or 6012/06 qualifications have the option to renew their NVQ with either a 6012/44 (Complex Closed), 6012/55 or 6012/66 qualification

2.6 6034/01 Level 2 Domestic Natural Gas Installation

Mandatory Units

To achieve the full NVQ at Level 2 for this award, the following units **must** be assessed across the full range of pipework / appliance(s) / meter(s) categories specified.

- | | |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit 4 | Install natural gas system and components
Pipework
Cooking and Laundry
Space Heating and Leisure
Central Heating and Water Heating
Warm Air and Water Heating
Meters |
| Unit 5 | Commission & decommission natural gas systems
Pipework
Cooking and Laundry
Space Heating and Leisure
Central Heating and Water Heating
Warm air and Water Heating
Meters |
| Unit 7 | Maintain safe working environment for all natural gas related work |
| Unit 8 | Establish, maintain and develop effective working relationships with others for all natural gas related work |
| Unit 10 | Apply gas safety measures to domestic natural gas related work activities |

Successful completion of this award proves that Learners are competent to work installing the full range of pipework / appliance(s) / meter(s) categories covered by the qualification.

2.7 6034/03 Level 3 Domestic Natural Gas Installation

Mandatory Units

To achieve the full NVQ at Level 3 for this award, the following units **must** be assessed across the full range of pipework / appliance(s) / meter(s) categories specified.

Unit 1	Design natural gas systems
Unit 2	Specify programmes for working on natural gas systems
Unit 3	Plan the work activities for natural gas systems and components
Unit 5	Commission & decommission natural gas systems Pipework Cooking and Laundry Space Heating and Leisure Central Heating and Water Heating Warm air and Water Heating Meters
Unit 7	Maintain safe working environment for all natural gas related work
Unit 8	Establish, maintain and develop effective working relationships with others for all natural gas related work
Unit 9	Contribute to the improvement of business products and services for natural gas related work
Unit 10	Apply gas safety measures to domestic natural gas related work activities
Unit 14	Install complex natural gas system and components Pipework Cooking and Laundry Space Heating and Leisure Central Heating and Water Heating Warm air and Water Heating Meters

Successful completion of this award proves that Learners are competent to work installing the full range of pipework / appliance(s) / meter(s) categories covered by the qualification.

2.8 6034/02 Level 2 Domestic Natural Gas Maintenance

Mandatory Units

To achieve the full NVQ at Level 2 for this award, the following units **must** be assessed across the full range of pipework / appliance(s) / meter(s) categories specified.

- | | |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit 5 | Commission & decommission natural gas systems
Pipework
Cooking and Laundry
Space Heating and Leisure
Central Heating and Water Heating
Warm air and Water Heating
Meters |
| Unit 6 | Service and maintain natural gas systems and components
Cooking and Laundry
Space Heating and Leisure
Central Heating and Water Heating
Warm Air and Water Heating
Meters |
| Unit 7 | Maintain safe working environment for all natural gas related work |
| Unit 8 | Establish, maintain and develop effective working relationships with others for all natural gas related work |
| Unit 10 | Apply gas safety measures to domestic natural gas related work activities |

Successful completion of this award proves that Learners are competent to work maintaining the full range of pipework / appliance(s) / meter(s) categories covered by the qualification.

2.9 6034/04 Level 3 Domestic Natural Gas Maintenance

Mandatory Units

To achieve the full NVQ at Level 3 for this award, the following units **must** be assessed across the full range of pipework / appliance(s) / meter(s) categories specified.

Unit 1	Design natural gas systems
Unit 2	Specify programmes for working on natural gas systems
Unit 3	Plan the work activities for natural gas systems and components
Unit 5	Commission & decommission natural gas systems Pipework Cooking and Laundry Space Heating and Leisure Central Heating and Water Heating Warm air and Water Heating Meters
Unit 7	Maintain safe working environment for all natural gas related work
Unit 8	Establish, maintain and develop effective working relationships with others for all natural gas related work
Unit 9	Contribute to the improvement of business products and services for natural gas related work
Unit 10	Apply gas safety measures to domestic natural gas related work activities
Unit 15	Service and maintain complex natural gas systems and components Cooking and Laundry Space Heating and Leisure Central Heating and Water Heating Warm air and Water Heating Meters

Successful completion of this award proves that Learners are competent to work maintaining the full range of pipework / appliance(s) / meter(s) categories covered by the qualification.

3 Assessment Strategy for NVQs in Domestic Natural Gas (6012 and 6034 Schemes)

3.1 Requirements for Scheme Staff

Assessors

General

The centre **must** nominate all Assessors to City & Guilds for approval prior to them conducting any assessments. Assessor may be employed by the Centre (Centre Based Assessors / Independent Assessors) or be work based (Workplace Assessors) who may or may not be from the same organisation as the Learners.

Assessors **must** be vocationally and occupationally competent in the areas they are assessing and have a thorough knowledge of the National Occupational Standards

In addition to the qualifications listed below, the Assessor must be able to provide appropriate documented evidence that demonstrates they have a minimum of 5 years proven occupational experience in the activities they will be assessing. Particular attention should be paid to providing evidence of occupational experience in the gas safety critical areas being assessed.

Where Assessors undertake assessments in the workplace, and are not supported by a suitable gas operative, then they or their employer shall be a member of an appropriate Gas Registration Body in accordance with the Gas Safety (Installation and Use) Regulations. In these circumstances they should also hold suitable insurance for this activity.

Qualifications

Assessors **must** be technically qualified in domestic gas installation / maintenance and hold the following qualifications:

- City & Guilds / SQA – N/SVQ in Domestic Natural Gas (Level 3); or
- City & Guilds - 662 Certificate for Service Engineers (Gas); or
- City & Guilds - 598-2 Certificate in Gas Installation Studies; or
- City & Guilds - 660 Certificate in Gas Fitting – Final

Note: This list is not considered exhaustive and other 'Mechanical Engineering Services' (MES) or 'Building Engineering Services' (BES) qualifications at Level 3 or equivalent may be considered acceptable. Centres must submit requests to confirm the acceptability of other qualifications to their External Verifier who will then seek approval from the SSC.

In addition to the above the Assessor **must** hold a current certificate of gas safety competence in the areas of gas work they will be assessing that is not more than 5 years old (either current ACS Certificates of Gas Safety Competence or a 6012 N/SVQ are acceptable).

'Centre Based Assessors' / 'Independent Assessors' **must** hold

- A1 or D32 and D33* as a minimum

and 'Workplace Assessors' **must** hold

- A2 or D32* as a minimum

- * The Teaching Qualification for Secondary Education (TQSE) or the Teaching Qualification for Further Education (TQFE) (which is recognised in Scotland) these awards are acceptable providing they are the versions that are recognised as equivalents to the A1 award.
Assessors holding D units must have evidence of Continuing Professional Development (CPD) to demonstrate compliance with the A units

A qualified Assessor shall supervise 'Candidate Assessors' who are working towards their Assessor qualifications. They should have a clear action plan for achieving the Assessor qualification(s) (this does not apply to Independent Assessors who **must** hold the appropriate Assessor qualification).

Assessor approval will be withdrawn if the qualification / units have not been attained within the approved period (18 months).

Evidence of CPD will be sought by the External Verifier for all Assessors approved to assess for the centre.

Independent Assessors

'Independent Assessors' are those assessors, specifically utilised by the Centre to meet NVQ / ACS alignment requirements for the 6012 Scheme. Their role is to assess specified areas of gas safety critical competencies within the Award. These specified areas are covered by the Independent Summative Assessments (ISAs).

In addition to the aforementioned requirements 'Independent Assessors' will also need to hold

- A1 or D32 and D33* (they are **not** allowed to be working towards these units)
- a current certificate of gas safety competence in the areas of gas work they will be assessing that is not more than 5 years old (see above) that has been obtained from an independent source.
 - * The Teaching Qualification for Secondary Education (TQSE) or the Teaching Qualification for Further Education (TQFE) (which is recognised in Scotland) these awards are acceptable providing they are the versions that are recognised as equivalents to the A1 award.

Assessors holding D units **must** have evidence of CPD to demonstrate compliance with the A units

Independent assessment will form a major role in ensuring that the overall assessment process is robust in relation to gas safety matters. As such 'Independent Assessors' must have **no vested interest** in the outcome of the assessment.

Those who could **not** claim to be independent include

- Assessors from the same organisation as the Learner
- a trainer who has trained a Learner in the area being assessed within 2 years of the assessment
- a personal friend, family member or personal acquaintance of the Learner

Note: By the 'Independent Assessors' signing the ISA documentation this is taken to be a declaration of their impartiality to the Learner. This declaration will form part of the audit requirements for the centre's external verification visits and continued scheme approval.

Internal Verifiers

General

The centre **must** nominate all Internal Verifiers to City & Guilds for approval prior to them conducting any verification activities. These can be employed by the Centre or be work based who may or may not be from the same organisation as the Learners.

Internal Verifiers **must** be vocationally and occupationally competent in the areas they are verifying and have a thorough knowledge of the National Occupational Standards.

In addition to the qualifications listed below, the Internal Verifiers must be able to provide appropriate documented evidence that demonstrates they have a minimum of 5 years proven occupational experience in the activities they will be verifying. Particular attention should be paid to providing evidence of occupational experience in the gas safety critical areas being verified.

Qualifications

Internal Verifiers shall be technically qualified in domestic gas installation / maintenance and hold the following qualifications:

- City & Guilds / SQA – N/SVQ in Domestic Natural Gas (Level 3); or
- City & Guilds - 662 Certificate for Service Engineers (Gas); or
- City & Guilds - 598-2 Certificate in Gas Installation Studies; or
- City & Guilds - 660 Certificate in Gas Fitting - Final

Note: This list is not considered exhaustive and other 'Mechanical Engineering Services' (MES) or 'Building Engineering Services' (BES) qualifications at Level 3 or equivalent may be considered acceptable. Centres must submit requests to confirm the acceptability of other qualifications to their External Verifier who will then seek approval from the SSC.

In addition to the above the Internal Verifier shall hold a current certificate of gas safety competence in the areas of gas work that they will be internally verifying that is not more than 5 years old (either current ACS Certificates of Gas Safety Competence or a 6012 Domestic Natural Gas N/SVQ are acceptable).

Where the Internal Verifiers themselves do not hold a suitable technical qualifications they must have access to technical expertise from qualified personnel, who hold the relevant qualifications, to support them where the verification requires technical support and interpretation.

Internal Verifiers **must** hold the

- A1 or D32 and D33*
- V1 or D34*

* The Teaching Qualification for Secondary Education (TQSE) or the Teaching Qualification for Further Education (TQFE) (which is recognised in Scotland) these awards are acceptable providing they are the versions that are recognised as equivalents to the A1 award.

Internal Verifiers holding D units must have evidence of CPD to demonstrate compliance with the A and V units

It is recommended that 'Candidate Internal Verifiers' have a clear action plan for achieving the Internal Verifier qualification(s).

Internal Verifier approval will be withdrawn if the qualification / units have not been attained within the approved period (18 months).

Internal Verifiers who verify the ISA assessment process on the 6012 Scheme **must** hold the appropriate A / D units and have **no vested interest** in the outcome of the assessment (see requirements for Independent Assessors).

External Verifiers

General

External Verifiers **must** be appointed by City & Guilds and be vocationally and occupationally competent in the areas they are verifying and have a thorough knowledge of the National Occupational Standards.

The External Verifiers must be able to provide appropriate documented evidence that demonstrates they have a minimum of 5 years proven occupational experience in the activities they will be verifying. Particular attention should be paid to providing evidence of occupational experience in the gas safety critical areas being verified.

Qualifications

External Verifiers should be technically qualified in domestic gas installation / maintenance and hold the following qualifications:

- City & Guilds / SQA – N/SVQ in Domestic Natural Gas (Level 3); or
- City & Guilds - 662 Certificate for Service Engineers (Gas); or
- City & Guilds - 598-2 Certificate in Gas Installation Studies; or
- City & Guilds - 660 Certificate in Gas Fitting - Final

Note: This list is not considered exhaustive and other 'Mechanical Engineering Services' (MES) or 'Building Engineering Services' (BES) qualifications at Level 3 or equivalent may be considered acceptable with the prior approval of City & Guilds.

In addition to the above the External Verifier should hold a current certificate of gas safety competence in the areas of gas work they will be verifying that is not more than 5 years old (either current ACS Certificates of Gas Safety Competence or a 6012 Domestic Natural Gas N/SVQ are acceptable) .

Where the External Verifiers themselves do not hold a suitable technical qualifications they must have access to technical expertise from qualified personnel, who hold the relevant qualifications, to support them where the verification requires technical support and interpretation.

External Verifiers **must** hold the

- A1 or D32 and D33*
- V1 or D34* (recommended)
- V2 or D35*

Note: External Verifiers holding D units **must** have evidence of CPD to demonstrate compliance with the A & V units.

It is recommended that 'Candidate External Verifiers' should have a clear action plan for achieving the External Verifier qualification(s).

External Verifier approval will be withdrawn if the qualification / units have not been attained within the approved period (12 months).

Electrical Competence

Minimum Technical Competence for Staff (Electrical Content)

This issue is still being actively discussed between the SSC's and Awarding Bodies for the Building Services Sector and the Health and Safety Executive (HSE). For current requirements for the minimum technical competence for staff (electrical content) see the latest 6012 and 6034 Scheme 'New Update' relating to this issue.

3.2 Requirements for Assessment

The Domestic Natural Gas NVQs are assessed through a combination of workplace assessment, simulation assessment, independent assessment and knowledge assessment.

The Domestic Natural Gas NVQs (6012 and 6034 Schemes) have a close relationship with the Vocational Related Qualification (VRQ) in Domestic Natural Gas (6132 Scheme). The later has been designed to provide the basis for the underpinning knowledge required to support the Domestic Natural Gas NVQs.

The 6132 Scheme now forms an integral part of the 6012 and 6034 Schemes. As such the following options are available to Learners:

- The 6132 Scheme can be completed as a stand alone award*
- The 6132 Scheme can be completed prior to a Learner progressing onto the 6012 / 6034 Schemes
- The 6132 can be completed alongside the 6012 / 6034 (this is the preferred method of study as the knowledge and understanding and the practical elements of the awards are undertaken together).
- The 6012 and 6034 Schemes **cannot** be run as a stand alone Qualification without the 6132.

*Full details of the 6132 Scheme can be found in the current 6132 Scheme Guide for Centre

Detailed requirements on the assessment documentation required to be completed for each Learner undertaking one of the Award Complex (including all 'APRs') available on the 6012 and 6034 Schemes can be found in the separate 'Quick Guides' referenced throughout this document.

Practical Evidence

Workplace Assessment

Workplace assessment is the primary source of evidence for making judgements about competence. Both direct observation and outcomes of work activities could be considered as primary evidence sources.

Learners **must** demonstrate competence in the workplace during the performance of genuine work activities, by carrying out the tasks and duties that would be reasonably expected of them as a competent operative. Learners will be expected to have demonstrated competence in the assessed tasks over a period of time under normal working conditions to generate a sufficiency of evidence.

Learners **must** be assessed in the workplace in the following areas:

Level 2	
Central Heating <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission 	Maintain Safe Working Environment <ul style="list-style-type: none"> • Use safe procedures when working with others • Use safe work practices
Space Heating <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission 	Working Relationships <ul style="list-style-type: none"> • Establish, maintain & develop effective working relationships with others
Pipework (Range: ≤ 35 mm & IGE/UP/1B) <ul style="list-style-type: none"> • Install & Commission • Decommission 	
Level 3	
Complex Central Heating <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission 	Maintain Safe Working Environment <ul style="list-style-type: none"> • Use safe procedures when working with others • Use safe work practices
Space Heating <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission 	Working Relationships <ul style="list-style-type: none"> • Establish, maintain & develop effective working relationships with others
Pipework (Range: ≤ 35 mm & IGE/UP/1B) <ul style="list-style-type: none"> • Install & Commission • Decommission 	
Level 3 (Emergency Service Operations)	
Complex Meters (Range: $\leq 6\text{m}^3/\text{h}$) <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission 	Maintain Safe Working Environment <ul style="list-style-type: none"> • Use safe procedures when working with others • Use safe work practices
Complex Pipework (Range: ≤ 35 mm & IGE/UP/1B) <ul style="list-style-type: none"> • Install & Commission • Decommission 	Working Relationships <ul style="list-style-type: none"> • Establish, maintain & develop effective working relationships with others
Gas Emergencies (Range: Non Hazardous Site & No Trace) <ul style="list-style-type: none"> • Respond to Emergency • Locate, Access & Secure Escape • Determine & Monitor Escapes 	LPG Installations (6012/06 & 66 Schemes) <ul style="list-style-type: none"> • Inspect & Commission

The following areas **shall** be assessed in the workplace, however, where the assessment opportunity does not present itself readily, Realistic Working Environment (RWE) simulated assessment can be conducted but **only** with the approval of the External Verifier (who will seek approval from the SSC). This approval shall be given in writing on a Learner by Learner basis and evidence to support the initial request for simulation must be included in the Learners Portfolio.

NOTE: For Learners undertaking an APR for Cookers the majority of evidence **must** be from the workplace, even where RWE assessment is permitted by the following table. Permission for RWE assessment on APR's will only be granted on a Learner by Learner basis in extenuating circumstances and official evidence to support the initial request must be included in the Learners Portfolio.

Level 2	
Cookers <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission 	
Level 3	
Complex Cookers <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission 	
Level 3 (Emergency Service Operations)	
Complex Meters (Range: $> 6\text{m}^3/\text{h} \leq 40\text{m}^3/\text{h}$) <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission 	Gas Emergencies (Range: Non Hazardous Site & No Trace) <ul style="list-style-type: none"> • Respond to Emergency • Locate, Access & Secure Escape • Determine & Monitor Escapes
Complex Pipework (Range: $> 35\text{mm} \leq 50\text{mm}$ & IGE/UP/1A) <ul style="list-style-type: none"> • Install & Commission • Decommission 	<i>Optional Unit 12</i> LPG Installations (6012/05 & 55 Schemes) <ul style="list-style-type: none"> • Inspect & Commission
Commercial Natural Gas <ul style="list-style-type: none"> • Prepare work locations • Carry out preparatory work to meet the installation requirements • Commission commercial system / component 	

The following areas of work **should** be from the workplace, however, where the assessment opportunity does not present itself readily, RWE simulated assessment can be conducted **without** the approval of the External Verifier.

Note: For Learners undertaking APR's relating to pipework / appliance(s) / meter(s) categories given in the following tables the majority of evidence **must** be from the workplace, even where RWE assessment is permitted by the following tables. Permission for RWE assessment **must** be obtained from the External Verifier (who will seek approval from the SSC). Permission for RWE assessment on APR's will only be granted on a Learner by Learner basis in extenuating circumstances and official evidence to support the initial request must be included in the Learners Portfolio

Level 2	
Central Heating <ul style="list-style-type: none"> • Fault Rectification 	Water Heating <ul style="list-style-type: none"> • Service and Maintain
Space Heating <ul style="list-style-type: none"> • Fault Rectification 	Cookers <ul style="list-style-type: none"> • Fault Rectification
Warm Air Heating <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission • Fault Rectification 	Meters (Range: $\leq 6\text{m}^3/\text{h}$) <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission
Level 3	
Complex Central Heating <ul style="list-style-type: none"> • Fault Rectification 	Water Heating <ul style="list-style-type: none"> • Service and Maintain
Space Heating <ul style="list-style-type: none"> • Fault Rectification 	Complex Cookers <ul style="list-style-type: none"> • Fault Rectification
Warm Air Heating <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission • Fault Rectification 	Complex Meters (Range: $\leq 6\text{m}^3/\text{h}$ & $> 6\text{m}^3/\text{h} \leq 40 \text{m}^3/\text{h}$) <ul style="list-style-type: none"> • Install & Commission • Service and Maintain • Decommission
Complex Pipework (Range: $> 35 \text{ mm} \leq 50 \text{ mm}$ & IGE/UP/1A) <ul style="list-style-type: none"> • Install & Commission • Decommission 	Design Natural Gas Systems <ul style="list-style-type: none"> • Design systems to meet customers demands
Specify Programmes for Natural Gas Work <ul style="list-style-type: none"> • Produce and monitor work programmes • Negotiate job contract terms and conditions 	Contribute to the Improvement of Business Products & Services for Natural Gas Related Work <ul style="list-style-type: none"> • Identify and recommend opportunities for improving customer care
Level 3 (Emergency Service Operations)	
Gas Emergencies (Range: Forced Entry & Evacuation) <ul style="list-style-type: none"> • Respond to Emergency • Locate, Access & Secure Escape • Determine & Monitor Escapes 	

The use of 'Witness Testimony' as a source of primary evidence for all work activities is not acceptable. 'Witness Testimony' may, however, be used as supporting evidence to cover the range of activities not covered by 'Workplace Assessment'. This evidence can only be accepted if the testimony is completed by a 'Technically and Occupationally Competent Witness' (the centres External Verifier will be able to give further advise on the use of witness testimony).

Realistic Working Environment (RWE) Assessment (Simulation)

RWE simulated assessment can only be used where specified and, if necessary, with the prior approval of the External Verifier (see previous section). Any approval given by the External Verifier **must** be in writing and filed in the centre's Quality Manual and in the 'Learners Portfolio' for audit purposes.

These assessments will normally be installation and maintenance bays in a workshop area. These areas are considered to be a 'managed' environment because there is a degree of control over the conditions under which the activity is undertaken. The simulation activities and bays will normally contain:

- real time pressures;
- a range of appliances, applicable to the assessment types;
- a variety of flue types, e.g. Type 'B', Type 'C', natural & fanned draught with a range of construction methods;
- a range of potential hazards that could realistically be found in a domestic dwelling, e.g. combustible surfaces, openable windows, doors, fans, curtains etc. (**Note:** these hazards can be simulated);
- a range of installation conditions, e.g. surface installation, under floor installation, through wall installation etc;
- a range of building material types, e.g. brick walls, block walls, plaster board and timber walls.

The RWE must take account of health and safety requirements for risk assessments, gas safety related issues and against other activities where generating evidence is limited.

The gas industry is highly regulated regarding safety requirements and this is reflected in the Domestic Natural Gas NVQs. Certain gas safety related assessments can only be carried out under simulated conditions. Gas safety critical activities (mainly covered by Unit 10) within the NVQ will normally be assessed in a simulated 'managed' environment' (see Independent Summative Assessments).

Independent Assessments

Due to its alignment with ACS, the 6012 Scheme introduced the requirement for 'Independent Assessment' of specific tasks within the qualification. This placed an additional requirement on the process that is not traditionally associated with NVQs. This 'Independent Assessment' provides confirmation that the Learner can perform gas safety related tasks, competently.

Independent Summative Assessments (ISAs)

To simplify the 'Independent Assessment' requirements' of the original 6012 Scheme and to demonstrate alignment with the current ACS Assessments, a new concept is included in the Domestic Natural Gas NVQs, this is the 'Independent Summative Assessment (ISA)'. The assessment process for the ISAs involves assessment of the Learner's performance by realistic simulation in a managed, independent assessment environment. The 'Independent Assessor' will observe assessments of the Learner's competence against a specified set of gas safety related performance criteria contained in the ISA Assessors Marking Sheets.

Several ISA's have been developed to compliment the full suite of Domestic Natural Gas NVQs, and a detailed list documenting these, as applicable to each Award Complex (including all 'APRs'), can be found in the separate 'Quick Guide to ISA's' document . This 'Quick Guide' is periodically updated and the latest version must always be used.

The introduction of these ISA's simplifies the process of 'Independent Assessment' on the 6012 Scheme. In particular it removes the need for an 'Independent Assessor' to be used for 'Workplace (Onsite / On the Job) Assessments'.

Note: It is important to recognise that the introduction of the ISA's only removes the requirement for 'Independent Assessment' in the workplace. It does **not** remove the requirement for 'Workplace Assessment' and this is still seen as the primary source of evidence for making judgements of competence. The 'Assessment Process' for the Domestic Natural Gas Schemes should be in accordance with this Centre Guide.

ISA Assessments were implemented on **1 August 2007**.

ISA Assessment Process

To ensure a consistent approach is taken to delivering and implementing the ISA's, the following requirements have been laid down.

General

- The ISAs can only be undertaken after such time that the Learner has obtained sufficient workplace experience to demonstrate their competence and their NVQ Portfolio is complete, to the satisfaction of the Centre Assessor, in respect of the Award they are seeking Certification in;
- For the 6012 Scheme 'Full Awards' the appropriate ISA's should be undertaken within 3 months of the claim for certification from City & Guilds;
- For the 6012 Scheme APR Mini Awards the appropriate ISA's should be undertaken within 1 month of the claim for certification from City & Guilds;
- The Assessor for the ISAs should be 'Independent' in accordance with this Guide' (6012 Scheme Only);
- The 'Assessment Area' that is used to assess the ISAs should be 'Independent', i.e. the Learners should not have had access to the area prior to the initial assessment, the Learners

must not have been trained or coached on specific items of equipment / appliance / scenarios that could be found in the ISA assessment area over and above such training / coaching they may have normally received whilst working towards their NVQ and the area should have sufficient equipment / appliances to allow a selection of 'Candidate Routes' to be planned to reduce assessment predictability and maintain the robustness of the assessment process;

- All ISA assessment documentation (Assessors Marking Sheets, Candidates Job Sheets, Practical Assessment Workbooks, etc.) must remain within the Centre. Candidates must not be allowed to remove these from the Centre, even when they have completed their NVQ and are entitled to retain their portfolio (as with the Knowledge & Understanding Paperwork).

ISA Assessment Marking

- Initial Assessment
 - a) Learners that achieve 100% pass the ISA assessment.
 - b) Where a Learner has failed to attain 100% (following any oral questioning asked as part of the assessment) at the Assessors discretion, the Learners may be re-assessed by oral questioning and / or observing the practical performance of the Learner against those performance criteria on which competence was not demonstrate during the initial assessment.
 - c) Following the second attempt described in (b) above, Learners that achieve 100% pass the ISA assessment. Learners attaining less than 100% will be deemed to have referred on the ISA assessment / task undertaken and will require further training before undertaking a Partial Re-Take Assessment of the complete ISA / Task, as required.

Note: Due to the requirement for further training, the re-sitting of the entire ISA / Task should not take place for at least 48 hours after the initial assessment on which the Learner was referred.

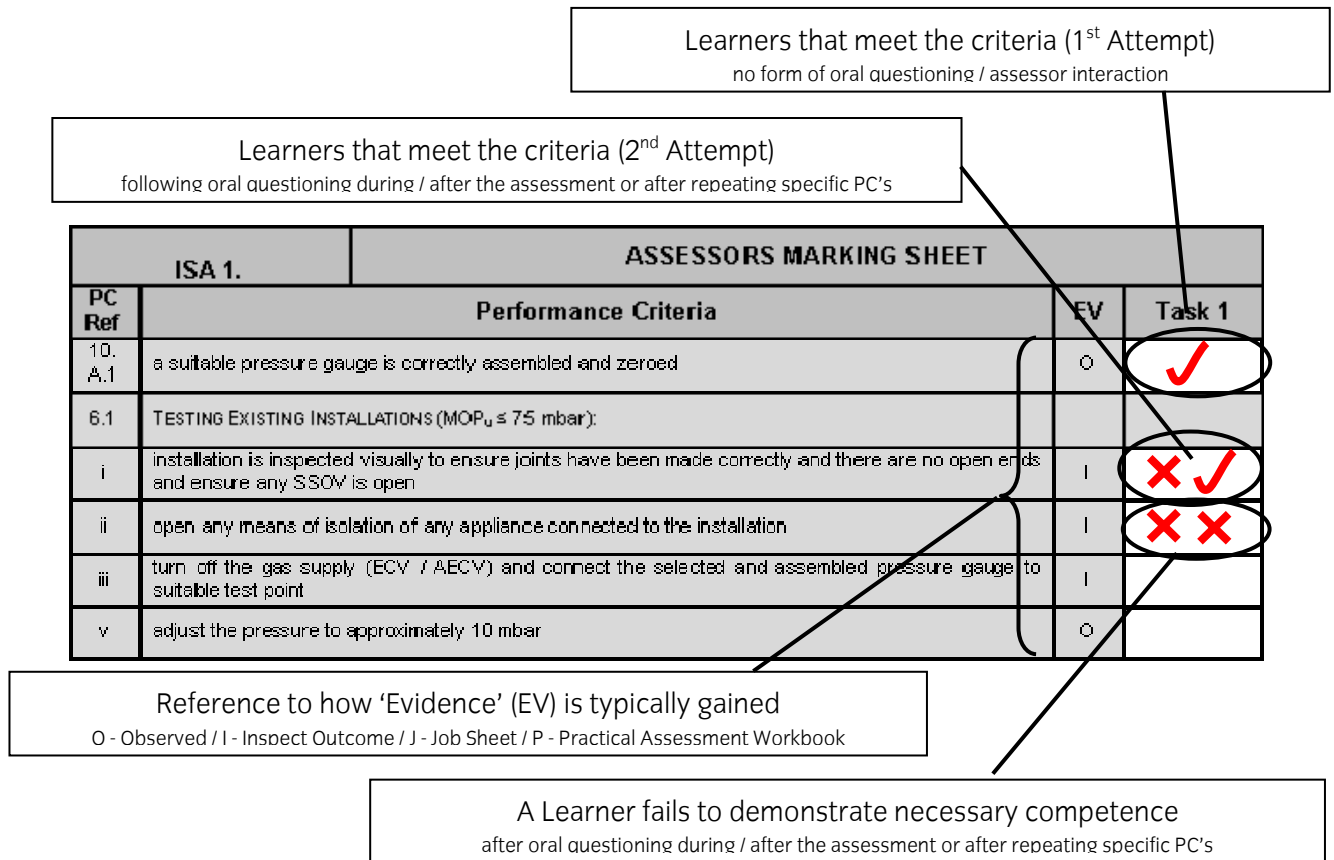
- Partial Re-Take Assessment
 - a) The Learner may undertake a Partial Re-Take Assessment of the entire ISA / or the full task of the ISA referred.
 - b) Following the Partial Re-Take Assessment described in (a) above, Learners that achieve 100% pass the ISA assessment. Where a Learner has failed to attain 100% (following any oral questioning asked as part of the assessment) at the Assessors discretion, the Learners may be re-assessed by oral questioning and / or observing the practical performance of the Learner against those performance criteria on which competence was not demonstrated during the Partial Re-Take Assessment.
 - c) After undertaking a second attempt on a Partial Re-Take Assessment described in (b) above, Learners that achieve 100% pass the ISA assessment.
 - d) Learners attaining less than 100% on a second attempt on a Partial Re-Take Assessment will be deemed to have failed to demonstrate a satisfactory competence level for the specific assessment.
 - e) Where a Learner has failed to demonstrate a satisfactory competence level at this summative assessment stage in completing their NVQ, an interview should be set up between the Learner, the Learners workplace assessor(s), the independent assessor and the internal verifier (and employer if required) to review the Learners performance. Following this interview the decision should be made as to what action the Learner needs to take before re-attempting the entire ISA assessment (including all Tasks and Practical Assessment Workbook Scenarios)

Note: Due to the requirement for further actions, the re-sitting of the entire ISA should not take place for at least 14 days after the Partial Re-Take Assessment on which the Learner was referred.

Completion of ISA Assessor Checklists

- Initial Assessment

The Assessors Checklist must be completed as indicated in the following diagram:



- Partial Re-Take Assessment

Assessors undertaking Partial Re-Take Assessment of Learners should use a 'Blank' Assessor Check List to mark the Learners performance against the task or tasks they are being asked to repeat. Learners should also be provided with a 'Blank' Candidates Job Sheet to complete during the assessment.

Note: It may be beneficial to ease identification of Partial Re-Take Assessment documentation by using a different colour paper to that used for Initial Assessment.

The Partial Re-Take Assessment should be marked on the paperwork as for Initial Assessment, but the Assessor should indicate in the appropriate box on the Assessor Checklist that a Partial Retake Assessment has taken place (see example below).

Task Decision:	Pass (P), Refer (R) or Fail (F)	P
Partial Re-Take Assessment of Task:	Yes (Y) or Not Applicable (N/A)	Y

Practical Task / Activity	Initial Assessment Recommendation	Partial Re-Take Assessment Recommendation	Overall Task / Activity Recommendation ¹	Internally Verified ²
Task 1	PASS / REFER *	PASS / FAIL *	PASS / FAIL *	Yes / No *
Task 2	PASS / REFER *	PASS / FAIL *	PASS / FAIL *	Yes / No *
Task 3	PASS / REFER *	PASS / FAIL *	PASS / FAIL *	Yes / No *
PAW <small>Result from Candidates Job Sheet</small>	PASS / REFER *	PASS / FAIL *	PASS / FAIL *	Yes / No *
PRACTICAL ASSESSMENT RECOMMENDATION:			PASS / FAIL [†]	¹ Delete as required

ISA Route Plans

Each ISA contains a 'Route Plan' that enables Centres to document their approach to assessment. Each plan contains at least 2 variations that enable the Centre to vary the assessment to reduce the predictability of the assessment occasion.

Centres should complete and retain copies of these to allow the Internal and External Verifiers to monitor the assessment process and make objective decisions on a Learner's performance during an assessment. The External Verifiers will audit Learner's records against these 'Route Plans' on their monitoring visits.

Each Route plan has a 'Used From' date, this clearly indicates the date the plan was used from. Where equipment, setups are modified etc. the Route Plan should be amended and a new one created with the appropriate revised 'Used From' date. Out of date 'Route Plans' should be retained by the Centre for use by Internal and External Verifiers.

Each ISA Assessment contains a 'Route Plan Example'; these are designed to give Centres guidance in developing routes. These examples show green and red text, the green text indicates areas that will be 'blank' on the normal 'Route Plan' and this gives the Centre a great deal of latitude to vary routes and utilise existing equipment. The red text remains on the normal 'Route Plan', this should not normally be altered as they are either requirements of the NVQ / ACS alignment process or are figures, etc. that are fixed for other reasons (e.g. a statutory requirement).

ISA Practical Provisions

It is important to ensure that when ISA Assessments are carried out during the completion of Domestic Natural Gas NVQ's that suitable 'Practical Provisions' are available. Details of these practical provisions can be found in the 'Quick Guide to ISA Practical Provisions'. This 'Quick Guide' is periodically updated and the latest version must always be used.

3.3 Knowledge Evidence

Underpinning Knowledge Questions

Knowledge and understanding written assessments will be undertaken via the use of City & Guilds set question papers.

Several 'Question Papers' have been developed to compliment the full suite of Domestic Natural Gas NVQ's, and a detailed list documenting these, as applicable to each Award Complex (including all 'APRs'), can be found in the separate 'Quick Guide to Underpinning Knowledge Question Papers' document. This 'Quick Guide' is periodically updated and the latest version must always be used.

Underpinning Knowledge Questions Assessment Process

All written question papers will be Centre delivered and Centre Assessed (ie within an approved Domestic Natural Gas NVQ centre).

The instructions for invigilating, marking and using the underpinning knowledge question papers are contained within each question paper. These instructions **must** be followed in their entirety for each question paper.

Assignments

Assignments will normally need to be undertaken to cover / supplement other evidence presented for Units 1, 2, 3, 9 and 11.

Several 'Assignments' have been developed and are preset by City & Guilds to compliment the full suite of Domestic Natural Gas NVQs.

Approved Centres may wish to supplement the preset 'Assignments' with their own 'Centre Set Assignments'. These Assignments should include reference to the Units and Elements they are covering and include detailed 'Marking Schedules' and 'Rationales'.

In relation to any ongoing Assignments, a record must be kept of all oral and written questions asked by the Assessor along with the Learners responses.

3.4 Accreditation of Prior Learning

Accreditation of Prior Learning (APL) evidence is an acceptable source of evidence for **both** the 6012 and the 6034 Schemes.

For evidence of gas safety competence the following constraints shall apply.

- ACoPS / ACS Certificates of Gas Safety Competence will not be acceptable as APL evidence. All evidence of current gas safety competence **must** be demonstrated throughout the Award being undertaken.

All APL evidence **must** be approved by the Centres APL Advisor. The APL Advisor shall hold D36 or equivalent. All evidence shall be sufficient, valid, reliable, authentic and current.

Learners should be actively encouraged to progress from the 'Full Domestic Natural Gas NVQ' qualification at Level 2 to Level 3.

APL for Qualification Progression - Workplace and Simulation Assessment

If a Learner has completed a Level 2 Domestic Natural Gas NVQ this evidence can be used as APL evidence to facilitate progress onto the Level 3 Award. Equally if a Learner has completed an APR 'Mini Award' this evidence can be used as APL evidence to facilitate progress onto a 'Full Domestic Natural Gas NVQ'. When assessing the suitability of this evidence consideration needs to be given to its currency. Evidence from the preceding award that is over 2 years old on the date the Learner is registered for the subsequent award should not be accepted.

APL for Qualification Progression – ISAs

In circumstances where Learners intend to progress from a 'Full Domestic Natural Gas NVQ' qualification at Level 2 to Level 3, APL can be used for the ISA's completed at Level 2 providing the following actions are undertaken.

- APL directly the evidence gained in the ISA paperwork completed at Level 2 into the current version of the ISA documentation.
- A 'Gap Filling' exercise is carried out with the Learner to cover the criteria not already evidenced.

Note: The 'Gap Filling' exercise **must** be undertaken by an 'Independent Assessor' and the Learner must carry out any necessary practical activities required to complete the process.

The maximum time lapse allowed to APL ISA evidence gained at Level 2 into Level 3 is 12 months from the date of issue of the Level 2 certificate to the date of 'Registration' for the Level 3. Where this timescale is not adhered to then the Learner will need to be re-assessed on the areas covered at Level 2 using the current appropriate ISA(s).

Learners may also wish to expand their range of work activities by progressing from one of the 6012 APR 'Mini Awards' to a 'Full Domestic Natural Gas NVQ'. In these circumstances APL can **not** be used for the ISA's completed in APR 'Mini Awards'. In these circumstances the Learner is required to complete all the current ISA's required by the 'Full Domestic Natural Gas NVQ' being undertaken.

APL for Qualification Progression - Underpinning Knowledge Questions

Learners who have completed the '6132 Scheme' can APL the results of the underpinning knowledge question papers against the 6012 / 6034 Schemes underpinning knowledge question papers providing the Learner has been registered for the 6012 / 6034 Scheme within 12 months of the date of certification of the 6132 Scheme.

Learners who have previously completed a 6012 APR 'Mini Awards' can APL the results of the underpinning knowledge question papers against a 6012 'Full Domestic Natural Gas NVQ' underpinning knowledge question papers providing the Learner has been registered for the 6012 Full Award within 12 months of the date of certification of the 6012 APR 'Mini Awards'.

3.5 Gathering Evidence

In order to achieve a 'Full Domestic Natural Gas NVQ', or to gain certification in a chosen 6012 APR 'Mini Award', Learners **must** produce sufficient evidence of competence.

For the 6012 and 6034 Schemes, the primary source of evidence **must** be collected from the workplace. This evidence will be recorded on the Records of Assessment (ROA) sheets and will be collected by an Assessor through the use of Sufficiency of Evidence (SOE) sheets, Independent Summative Assessment (ISA) documentation supplemented by records of 'Assignments' completed, questions asked, responses given together with any 'Feedback Sheets' completed by an Assessor and Learner.

Using RoAs, SoEs and ISAs ensures that evidence of competence is gathered, organised and recorded in a uniform manner across all Domestic Natural Gas NVQ centres.

Where appropriate, Learners may provide evidence of prior learning (see APL Section of this Guide).

'Witness Testimony' may be used as supporting evidence to cover the range of activities not covered naturally by 'Workplace Assessment'. This evidence will normally be via a completed SoE sheet signed by a 'Technically and Occupationally Competent Witness' (the centres External Verifier will be able to give further advice on the use of witness testimony).

The Centre will retain possession of all material in the form of a 'Learners Portfolio' and a 'Centre Portfolio'.

3.6 The Learners Portfolio

The RoA sheets together with the corresponding SoE sheets will form the bulk of a portfolio's documentary evidence and will show assessment progress and completion. These documents, together with any other forms of evidence shall be kept secure by the Assessor at the centre.

The portfolio should be made available to the Learner for duplication so that they can be presented to any person who has a legitimate interest in the information contained within them (for example prospective employers, Gas Registration Body, etc.)

The 'Learners Portfolio' could be made up of a combination of the following:

- Summary of the results from Knowledge & Understanding Question Papers
- Summary of the results from Independent Summative Assessments
- Record of Assessment (RoA) sheets
- Sufficiency of Evidence (SoE) sheets
- Copies of all Learner specific questions together with a record of the answers given (oral or written)
- Feedback sheets
- Witness Statements
- Work Method Statements
- Accredited Evidence of Prior Learning (APL Evidence)
- Assessor Assessment Plans - feedback to Learners
- Company or employer job sheets and specifications
- Curriculum Vitae
- Photographic Evidence

The original evidence must be retained by the centre for a period of no less than twelve months following the first External Verifiers visit after the claim for certification.

During the process of completing their qualifications Learners should be made aware that they can collect their portfolios after this time. The centre should write to the Learners last known address on at least two occasions to give the Learner every opportunity to collect their portfolio, indicating that if the portfolio is not collected it will be destroyed. If the portfolio has not been collected within six months of the date the Learner was first entitled to collect it, it may be destroyed, taking into account any data protection legislation that affects personal details contained within the portfolio.

3.7 The Centre Portfolio

To ensure the security of assessment documentation the following evidence **must** be retained and stored in secure centre files.

- Knowledge & Understanding Question Paper Answer Sheets.
- Independent Summative Assessment Assessor and Learner Documentation.

This evidence must be retained by the centre for a period of not than six years from the date of certification.

All papers must be securely stored so that access is allowed by authorised personnel only. External Verifiers will require see that centres are operating this process.

3.8 Sufficiency of Evidence Sheets

Performance evidence is collected through the use of SoE sheets. These can be used by any of the

- ‘Centre Based Assessor(s)’
- ‘Workplace Assessor(s)’
- Technically & Occupationally Competent Witness(s)

SoE sheets will provide evidence of technical competence.

Each task associated with the range of activities required to evidence competence in a specific area (e.g. space heating installation) will require completion of a separate SoE sheet.

The number of SoE sheets that could be generated is dependent on the range of tasks that must be completed and the number of occasions that tasks are completed to demonstrate competence across the range of activities.

For Example:

A **minimum** of four SoE sheets would be required for space heating installation, one each for

- an open flue radiant convector space heater
- an open flue Inset Live Fuel Affect (ILFE) space heater
- an open flue Inset Decorative Fuel Affect (DFE) gas appliance
- a balanced flue / fan assisted space heater.

Where insufficient evidence across the criteria or range for the activity is presented, or where a re-assessment needs to take place to gather further evidence of competence, a new SoE should be used.

Where a Learner is found to be ‘Not Yet Competent’ or where the assessment is stopped for any reason, the Assessor should record the details.

The Assessor(s) must sign and date all SoE’s they use in the appropriate place and indicate the location where the assessment took place.

When an SoE is completed by a ‘Technically & Occupationally Competent Witness’ they must sign and date the SoE in the appropriate place and indicate the location where work activity took place. They **must** also include details of the unique reference given to them by the appropriate Gas Registration Body.

The information that is collected on each SoE sheet must be transferred onto the appropriate RoA. The Centre Based Assessor(s) responsible for the Learners Portfolio development will append the relevant SoE sheets to the applicable RoA document.

A detailed list of SoEs applicable to each Award Complex (including all ‘APRs’), can be found in the separate ‘Quick Guide to RoAs & SoEs’ document. This ‘Quick Guide’ is periodically updated and the latest version must always be used.

3.9 Record of Assessment Sheets

The RoA contains 'Evidence Specification Statements' and 'Commentaries' that need to be assessed and shows how these satisfy the performance criteria for each unit and element within the qualification across the stated range. The RoA 'Evidence Specification Statements' and 'Commentaries' are cross-referenced to the National Occupational Standards for Domestic Natural Gas.

The RoA **must** only be signed off when there is sufficient evidence of competent performance to cover the stated range of the activity. The Centre Based Assessor(s) responsible for the Learners Portfolio development and the Learner shall both sign the RoA. When the Assessor signs the RoA it indicates that they are satisfied that there is sufficient evidence to confirm competence in the applicable performance areas.

City & Guilds reserves the right to inspect and audit RoA documentation at any stage in the assessment process.

A detailed list of RoAs applicable to each Award Complex (including all 'APRs'), can be found in the separate 'Quick Guide to RoAs & SoEs' document. This 'Quick Guide' is periodically updated and the latest version must always be used.

Note: The Learners will still be required to show that they have successfully completed the relevant knowledge and understanding assessments & ISAs.

Witness Testimony

'Witness Testimony' can **not** be accepted as a primary source of evidence for all work activities. 'Witness Testimony' may be used as supporting evidence to cover the range of activities not covered by 'Workplace Assessment' or RWE Assessment.

'Witness Testimony' evidence can only be accepted if the testimony is completed by a 'Technically and Occupationally Competent Witness' and will normally be in the form of a completed and signed SoE with other supporting evidence (e.g. company or employer job sheets, photographic evidence). The centres External Verifier will be able to give further advice on the use of witness testimony.

The evidence provided by 'Witness Testimony' and other non-observed sources must be substantiated by an Assessor (e.g. by confirming the suitability of the witness and by professional discussion). Once the evidence has been substantiated and suitably documented, then it can be referenced to the appropriate RoA by the Assessor.

Written & Oral Questioning

Assessors should use questioning where they consider it is appropriate to fully cover the subject area being assessed and to allow the Learner to evidence their full understanding.

When using oral questions, Assessors should be mindful of the effect their behaviour can have on the Learners performance. Questions should be asked in the spirit of gaining information rather than pressurising a Learner by creating the atmosphere of a test.

ALL oral questions must be relevant to the assessment criteria and the Assessor must **not** coach or lead the Learner towards providing correct answers. The Assessor must **not** ask the Learner any 'leading' or 'closed' questions. Assessors should take care to ask clear questions.

Questions and the Learners responses should be recorded on the appropriate assessment documentation, for example on the 'Feedback Sheet' provided with the RoA.

Feedback Sheets

Learners shall be given feedback at appropriate times during the completion of their qualification, as determined suitable by the Assessor, employer, mentor, etc. This would normally be associated with an assessment activity with Assessor involvement and should be given as soon a practical after the completion of the activity.

It is important that a copy of all feedback and oral questioning sessions with Learners are kept for inclusion in the Learner Portfolio.

Notes from feedback and oral questioning sessions might not include a precise record of the feedback, questions and answers to every question, but a summary of the feedback, questions and answers must be recorded with reference to specific criteria as necessary.

4 External Quality Control Requirements

All NVQs require a stringent quality control mechanism to maintain the quality of learning and outcomes for the Learner.

The Domestic Natural Gas NVQs utilise a significant number of external quality control methodologies to underpin its quality.

These requirements include, but are not limited to:

- The use of 'Independent Assessment' to assess competence via an 'Independent Assessor' assessing the Learner's performance (6012 Scheme Only);
- Knowledge assessment using City and Guilds set questions;
- An 'Assessment Strategy' that dictates the specific requirements for Workplace Assessment, Assessor / Verifier competency and the requirements for verification of assessment evidence and assessor performance;
- All centres approved for and actively delivering the Domestic Natural Gas NVQs will normally be externally verified **twice** a year;
- Additional external verification visits may be initiated against centres not meeting scheme requirements at the cost of the centre concerned;
- It is recommended that where a centre has received an adverse report from a governmental body or governmental appointed body responsible for learning and development or health and safety, that the external verification process will investigate and increase external verification visits at the cost of the centre concerned.

Appendix 1 Glossary of Terms

Approved Centre: an organisation inspected by City & Guilds and deemed to have the trained staff and resources to make assessment arrangements for particular NVQs.

APL: the Assessment of Prior Learning. The facility for an individual to receive credit for previously acquired (and still current) competence. Also known as APA (Assessment of Prior Achievement).

Assessor: person accountable to the external verifier (through the internal verifier) who is both experienced and qualified/or working towards qualifications in assessing Learners. Assessor skills include observation, evaluation, making judgements about individual performance.

Assessors may be based in the workplace, in an approved centre such as a college, or be peripatetic, visiting Learners in a variety of situations.

Assessment Plan: Between Assessor and Learner a structured approach is used to specify how, where and when evidence will be generated and what method of assessment will be used. This information is recorded, dated and signed by assessor and Learner and is used as the basis for review meetings between Learner and assessor.

Awarding Body: an organisation recognised by the Qualifications and Curriculum Authority (QCA) for the purpose of awarding National Vocational Qualifications (NVQs).

Learner: employee or student / trainee who wishes to be assessed in order to gain a qualification (formerly referred to as a candidate).

Certificate of Unit Credit: document issued by City & Guilds listing units achieved (not available for APRs).

Competence: an assessment based on the Learner's ability to perform a task to a defined standard specified in the national occupational standards.

Evidence: the means by which an external verifier can be satisfied that an individual has been properly assessed, usually a combination of completed/endorsed witness statements, and assessments by a qualified assessor with additional documentation collected in a portfolio of evidence.

External Verifier: person accountable to City & Guilds who by monitoring and advising internal verifiers and assessors effects quality assurance.

Internal Verifier: person accountable to the external verifier and City & Guilds who is based in the approved centre and who co-ordinates assessment arrangements and monitors assessor standards.

Local Examinations Secretary: administrator appointed by an approved establishment to act as contact in all dealings with City & Guilds on matters concerning the processing of assessment entries and results.

National Standard of Work (Performance Criteria): required from Learners to demonstrate their capability.

National Vocational Qualification: a qualification recognised by the Qualifications and Curriculum Authority (QCA) as being relevant to the need of industry.

Portfolio: a structured collection of evidence from several sources, gathered together and referenced to the national occupational standards, in which a Learner's achievements are recorded.

Real Work: where the provision of the product or service by the Learner, if not carried out, would require an organisation to employ someone else to do it.

Realistic Working Environment (RWE): an environment within which Learners are producing performance evidence subject to the following conditions:

- real work pressures (e.g. working hours, timescales, accountability, establishing priorities)
- real work problems
- real tools to do the job (e.g. real information, industry standard equipment)
- a real client or customer (not the trainer or assessor)

Technically & Occupationally Competent Witness: a gas operative who holds a current certificate of competence in the area of work for which they are providing witness testimony (these operatives must be a 'member of a class of persons' as outlined in Regulation 3(3) of the Gas Safety (Installation and Use) Regulations).

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this Centre Guide. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on www.cityandguilds.com.

Providing City & Guilds qualifications – a guide to centre and qualification approval

contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification. Specifically, the document includes sections on:

- The centre and qualification approval process and forms
- Assessment, verification and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Frequently asked questions.

Ensuring quality contains updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document contains information on:

- Management systems
- Maintaining records
- Assessment
- Internal verification and quality assurance
- Appeals
- External verification.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information such on such things as:

- ***Walled Garden***

Find out how to register and certificate candidates on line

- ***Events***

Contains dates and information on the latest Centre events

- ***Online assessment***

Contains information on how to register for GOLLA assessments.

Appendix 3 Funding

City & Guilds does not provide details on funding as this may vary between regions.

Centres should contact the appropriate funding body to check eligibility for funding and any regional/national arrangements which may apply to the centre or Learners.

For funding regulatory purposes, Learners should not be entered for a qualification of the same type, level and content as that of a qualification they already hold.

Please see the table below for where to find out more about the funding arrangements.

Nation	Who to Contact	Higher Level Qualifications
England	<p>The Learning and Skills Council (LSC) is responsible for funding and planning education and training for over 16-year-olds. Each year the LSC publishes guidance on funding methodology and rates. There is separate guidance for further education and work-based learning.</p> <p>Further information on funding is available on the Learning and Skills Council website at www.lsc.gov.uk and, for funding for a specific qualification, on the Learning Aims Database http://providers.lsc.gov.uk/lad.</p>	<p>Contact the Higher Education Funding Council for England at www.hefce.ac.uk.</p>
Scotland	<p>Colleges should contact the Scottish Further Education Funding Council, at www.sfc.co.uk.</p> <p>Training providers should contact Scottish Enterprise at www.scottish-enterprise.com or one of the Local Enterprise Companies.</p>	<p>Contact the Scottish Higher Education Funding Council at www.shafc.ac.uk.</p>
Wales	<p>Centres should contact the department for education, lifelong learning and skills: www.new.wales.gov.uk</p>	<p>Centres should contact the department for education, lifelong learning and skills: www.new.wales.gov.uk</p>
Northern Ireland	<p>Please contact the Department for Employment and Learning at www.delni.gov.uk.</p>	<p>Please contact the Department for Employment and Learning at www.delni.gov.uk.</p>

Appendix 4 Further Information

Further information regarding centre / scheme approval or any aspect of assessment of the Administration NVQs should be referred to the relevant City & Guilds regional / national office.

City & Guilds Regional Office	Telephone	Facsimile
Scotland	0141 341 5700	0141 341 5725
Northern	0191 402 5100	0191 402 5101
North West	01925 897 900	01925 897 925
Yorkshire	01924 206 700	01924 206 725
Wales	02920 748 600	02920 748 625
West Midlands	0121 503 8900	0121 359 7734
East Midlands	01773 842 900	01773 833 030
South West	01823 722 200	01823 444 231
London and South East England	020 7294 8139	020 7294 2419
Southern England	020 7294 2468	020 7294 2411
Eastern	01480 308 300	01480 308 325
Northern Ireland/ Ireland	028 9082 3750	028 9082 3775
Head Office (Customer Service Enquiry Unit)	020 7294 2800	020 7294 2400

Other useful contacts relating to Gas Qualifications

Energy and Utility Skills Limited:
(Sector Skills Council)

Friars Gate
1011 Stratford Road
Shirley
Solihull
B90 4BN

Tel: 0845 077 99 22

Web: www.euskills.co.uk

Blue Flame Associates Limited:
(City & Guilds Gas Sector Consultants)

Unit 8, High Carr Network Centre
Millennium Way
High Carr Business Park
Newcastle under Lyme
Staffordshire
ST5 7XE

Tel: 0845 194 90 40

E-mail: enquiries@blueflameassociates.com

Useful contacts

Type	Contact	Query
UK learners	T: +44 (0)20 7294 2800 E: learnersupport@cityandguilds.com	<ul style="list-style-type: none"> • General qualification information
International learners	T: +44 (0)20 7294 2885 F: +44 (0)20 7294 2413 E: intcg@cityandguilds.com	<ul style="list-style-type: none"> • General qualification information
Centres	T: +44 (0)20 7294 2787 F: +44 (0)20 7294 2413 E: centresupport@cityandguilds.com	<ul style="list-style-type: none"> • Exam entries • Registrations/enrolment • Certificates • Invoices • Missing or late exam materials • Nominal roll reports • Results
Single subject qualifications	T: +44 (0)20 7294 8080 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) E: singlesubjects@cityandguilds.com	<ul style="list-style-type: none"> • Exam entries • Results • Certification • Missing or late exam materials • Incorrect exam papers • Forms request (BB, results entry) • Exam date and time change
International awards	T: +44 (0)20 7294 2885 F: +44 (0)20 7294 2413 E: intops@cityandguilds.com	<ul style="list-style-type: none"> • Results • Entries • Enrolments • Invoices • Missing or late exam materials • Nominal roll reports
Walled Garden	T: +44 (0)20 7294 2840 F: +44 (0)20 7294 2405 E: walledgarden@cityandguilds.com	<ul style="list-style-type: none"> • Re-issue of password or username • Technical problems • Entries • Results • GOLA • Navigation • User/menu option problems
Employer	T: +44 (0)121 503 8993 E: business_unit@cityandguilds.com	<ul style="list-style-type: none"> • Employer solutions • Mapping • Accreditation • Development Skills • Consultancy
Publications	T: +44 (0)20 7294 2850 F: +44 (0)20 7294 3387	<ul style="list-style-type: none"> • Logbooks • Centre documents • Forms • Free literature

If you have a complaint, or any suggestions for improvement about any of the services that City & Guilds provides, email: feedbackandcomplaints@cityandguilds.com

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