



**ACS.CHANGEOVER  
CORE GENERIC PART A  
SAFETY ASSESSMENT CRITERIA  
INITIAL & RE-ASSESSMENT  
DOMESTIC TO NON-DOMESTIC  
NATURAL GAS & LPG**

## Introduction

Tests gas safety competence of those intending to extend domestic gas work range to include non-domestic Natural Gas work range.

Comprises:

1. Gas safety legislation and Standards
5. Installation of pipework and fittings
6. Tightness testing and purging (appliance pipework connections) (volume 0.12 m<sup>3</sup>)
8. Unsafe situations, use of emergency notices for pipework
9. Operation and positioning of emergency isolation controls and valves
10. Checking and setting burner pressures and gas rates
11. Operation and checking of appliance gas safety devices and controls
15. Re-establish existing gas supply and relight appliances.

CBs may adopt Competence and Criteria numbering different to that used in this document.

CB documentation may adopt wording for criteria different to that used in this document, provided the meaning is unaffected.

## Range

All non-domestic gas fittings.

## Pre-requisites

### *Initial*

CCN1 or  
CCLP1 or  
QCF or S/NVQ.

### *Re-assessment*

c/o Domestic to ND Core Generic Part A +  
CCN1 or  
CCLP1 or  
QCF or S/NVQ

## Exclusions

Work previously covered in CCN1 or CCLP1.

### **CC5:**

Diameters of pipework in excess of 35mm (copper) R1¼ (steel) are covered in IGEM/UP/2, therefore, operatives must hold ICPN1.

### **CC6:**

An installation with a range  $\geq$  than 0.12m<sup>3</sup> or operating at a pressure higher than 21mbar where this application is not suitable or where the above parameters are exceeded an Appliance Connector test must be carried using all relevant sections of IGEM/UP/I or 1A as applicable and the operative must hold the additional ACS elements TPCP1 or TPCP1A as appropriate.

**References and normative documents**

MIs.

All relevant documents as listed in the Legislative, Normative &amp; Informative Document List (LINDL), inc.:

- SL56
- GIUSP.
- IGEM/UP/1
- IGEM/UP/11

ACS.SMB. 003.ACDND identifies Normative Documents that should be held by ACs.

**Abbreviations**

AC. Assessment Centre

CB. Certification Body

LDF. Leak detection fluid

MIs. Manufacturer's/manufacturers' instructions

OP. Operating pressure

OQ. Oral questioning

Ref. Reference.

**1. Gas safety legislation and Standards**

KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	Education (School Premises) Regulations. Ventilation rates		✓	

**3. Products and characteristics of combustion**

KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	Installation of CO detectors and indicators in educational establishments		✓	✓

**4. Ventilation**

KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	Ventilation for heating appliances		✓	✓
2.	Calculating ventilation for combustion for food technology areas in educational establishments		✓	✓

**5. Installation of pipework and fittings.**

Operatives may only make the connection to an appliance with fittings / pipework of diameter  $\leq 35$  mm (copper) R1 ¼ (steel)

PERFORMANCE CRITERIA		REF	I	R
1.	identify pipework safety defects		✓	✓
KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	labelling CSST in educational establishments		✓	
2.	commercial flexible and plug in connections, specifically for educational establishments		✓	
3.	siting and installation requirements for gas controls and isolation valves, specifically for educational establishments		✓	
4.	effects of vibration from appliances and equipment for educational establishments		✓	✓
5.	Maximum Operating Pressure 50mbar for educational establishments		✓	✓
6.	purpose and suitability of using a non-contact voltage tester		✓	✓

**6. Appliance Connection Test:****Tightness testing of appliance to pipework connection where the test the volume up to 0.12m<sup>3</sup> and a diameter not exceeding 35mm or 1<sup>1/4</sup> (found in IGEM/UP/1, Section 5 (5.9))**

PERFORMANCE CRITERIA	REF	I	R
1. turn off appliance isolation valve	5.9.2	✓	✓
2. assemble and zero suitable pressure gauge		✓	✓
3. connect gauge to pressure test point or burner injector		✓	✓
4. by-pass appliance regulator or screw down to its maximum outlet pressure (to prevent lock-up) (OQ)	5.9.3	✓	✓
5. test appliance isolation valve for let-by after first ensuring gas is present on inlet side of isolation valve. (50% OP for 2minutes)	5.7.48	✓	✓
6. re-pressurise connection by gas or air to at least OP	5.7.48	✓	✓
7. close off pressurising medium		✓	✓
8. observe gauge for 2 minutes	5.8.2	✓	✓
9. allow no perceptible drop on gauge	5.8.2	✓	✓
10. re-establish gas supply to appliance and purge of air		✓	✓
11. re-establish appliance regulator and re-set to MIs (OQ)		✓	✓
12. remove gauge and re-establish test point and check using LDF		✓	✓
KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. maximum volume of pipework to which test can be applied	5.9.2	✓	✓
2. procedures where appliance connector pipework exceeds volume allowed of 0.12m <sup>3</sup> and diameter exceeds 35mm.	5.9.2	✓	✓
3. appropriate recorded certificates for installation pipework prior to appliance connector test carried out.		✓	✓

**8. Unsafe situations, use of emergency notices and warning labels for pipework**

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. GIUSP: non-domestic installations		✓	

**9. Operation and positioning of emergency isolation controls and valves**

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. emergency isolation valves		✓	
2. inside meter positions		✓	
3. outside meter positions		✓	
4. types of automatic isolation valves used		✓	
4a. awareness of need to refer to special requirements for automatic isolation valves in educational establishments	IGEM/UP/11 7.2.4	✓	
4b. awareness of need to refer to special requirements for isolation, heat, fire, gas and CO detection systems in boiler/plant rooms in educational establishments	IGEM/UP/11 7.2.5.1 7.2.5.4 7.2.5.5	✓	
5. HSL56: non-domestic aspects of Reg.9 (1) to (5) inclusive		✓	

**10. Checking and setting burner pressures and gas rates**

PERFORMANCE CRITERIA	REF	I	R
<b>Measure OP of a non-domestic appliance connected to an installation</b>			
1. assemble and zero suitable pressure gauge		✓	
2. dismantle appliance, as required, remove appropriate pressure test screw and connect gauge using suitable tubing		✓	
3. light appliance, check and record OP and confirm to MIs		✓	
4. adjust appliance regulator, as required		✓	
5. turn off appliance, remove gauge, replace test screw, re-establish gas and check test point with LDF		✓	

**11. Operation and checking of appliance gas safety devices and controls**

PERFORMANCE CRITERIA	REF	I	R
1. identify gas safety device/control		✓	
2. check correct operation of each gas safety control/device to MIs		✓	
3. identify gas safety controls/devices not working correctly by operation and/or visual, audible methods		✓	
4. demonstrate diagnosis of faulty gas safety device/control		✓	
5. isolate gas and electrical supplies, where necessary		✓	
6. repair or replace faulty gas safety control/devices to MIs		✓	
7. re-establish gas and electrical supplies, where necessary		✓	
8. check work carried out is gas tight		✓	
9. confirm correct operation of repaired/ replaced gas safety controls/devices to MIs		✓	
10. explain safe operation of gas safety control/device		✓	
KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. explain principle of operation of controls/devices		✓	
2. sequence of operation of control/devices switches and valves		✓	

**15. Re-establish existing gas supply and re-light appliances**

PERFORMANCE CRITERIA	REF	I	R
1. check installation is gas tight		✓	✓
2. re-establish gas supply		✓	✓
3. <b>check appliance(s) visually and re-light, inc.:</b>			
(i) purge system and appliance(s) of air		✓	✓
(ii) light appliance(s)		✓	✓
(iii) confirm satisfactory operation of user controls and leave at original settings		✓	✓
(iv) visually inspect appliance/installation(s) for unsafe situations		✓	✓
KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. describe action when an un-commissioned appliance is identified			✓
2. confirm actions if pipework and appliances are not tested (commissioned) when gas supply is re-established			✓
3. HSL56. Reg. 33 Testing of appliances 33 (1) to (3) inc.			✓