

# ACS.CMET1 SAFETY ASSESSMENT CRITERIA INITIAL and RE-ASSESSMENT EMERGENCY SERVICE PROVIDER AND GAS METER INSTALLER LOW PRESSURE DIAPHRAGM AND ROTARY DISPLACEMENT METER INSTALLATIONS NATURAL GAS

# **CMET1** INITIAL and RE-ASSESSMENT

### Introduction

Tests gas safety competence to install, commission, service, maintain and exchange LP diaphragm and RD meter installations.

Candidates successfully completing CMET1 may also install meters covered by MET4 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

Primary meter installations incorporating diaphragm, or rotary displacement meters without by-pass and of badged capacity > 6 m $^3$ /h  $\leq$  1076 m $^3$ /h and where the inlet pressure under normal gas supply conditions does not exceed 75 mbar and a meter regulator is to be installed.

This Assessment does not address meter installations that are not connected directly to and downstream of the ECV, nor does it address those that are not adjacent to the ECV. Work on such installations requires CMET2.

This Assessment does not address meter installations that are not Standard Designs, as defined in IGEM/GM/6 Edition 2 except a by-pass is included. IGEM/GM/6 Edition 2 no longer includes by-passes in its scope. New installations with a by-pass are covered by CMET2. However, this assessment continues to include the safe operation of by-passes to address existing installations.

## **Pre-requisites**

COCN1 or CMA1 or CESP1 or COCNPI1LS

- + ICPN1
- + TPCP1 or TPCP1A.
- or QCF or S/NVQ.

Engineers holding TPCP1 are deemed competent to work to IGE/UP/1, IGE/UP/1A, and IGEM/UP/1C.

# **Exclusions**

Calculating gas load; design; construction/installation of meter boxes, compartments or housing; installation or replacement of ECV, service valves or their operation; meter removal from site and subsequent disposal; testing by OFGEM, and theft of gas.

Certification in this assessment does not of itself confer approval as an 'AMI' registered gas meter installer.

### **References and normative documents**

The References (REF) where indicated are only a guide to where the criteria can be resourced and therefore the REF may not be exhaustive.

- MI's.
- HSL56
- GIUSP
- IGEM/GM/6 Edition 2
- IGE/GM/8 Parts 1 to 5
- IGE/UP/2 Edition 2.

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

# **Abbreviations**

AC. Assessment Centre

ECV. Emergency control valve

GT. Gas transporter

I. Initial

LP. Low pressure

MI's. Manufacturer's/manufacturers' instructions

MOV. Meter outlet valve

Ref. Reference.

PERF	ORMANCE CRITERIA	REF	Ι	R
1.	check ECV operates correctly		√	
2.	confirm connected appliances are of the 'standard type'		√	
3.	check all components are fit for use and purpose		$\checkmark$	$\checkmark$
3(a).			$\checkmark$	$\checkmark$
3(b).	check pressure in service pipe is LP		$\checkmark$	$\checkmark$
3(c).			$\checkmark$	$\checkmark$
4.	isolate gas supply prior to work		$\checkmark$	
5.	remove plug/cap from ECV		√	
6.	position U65 meter correctly		√	
7.	assemble and install all components of meter installation		$\checkmark$	
8.	·			
9.				
10.				
10(a)	. Existing installations with by-pass			
(i)	recognise as 'not a standard design'		$\checkmark$	
(ii)	carry out correct operation of by-pass to exchange meter while maintaining gas			
	supply to appliances, inc. reading meter		$\checkmark$	
(iii)	seal by-pass valve		$\checkmark$	
11.	criteria removed – covered in 7			
12.	criteria removed – covered in 7			
13.	position RD1 meter correctly		$\checkmark$	
14.	assemble and install all inlet supply components of meter installation		$\checkmark$	
14(a)	install commissioning filter/strainer		$\checkmark$	
15.	adequately support pipework		$\checkmark$	
16.	install and level meter		$\checkmark$	
17.	assemble and install all outlet components		$\checkmark$	
18.	criteria removed – covered in 7			
19.	Lubricate & check fill level of RD1 meter to MI's?	17.1.5 & MI's?	√	$\checkmark$
20.	test RD1 meter installation for tightness		√	√
21.	purge RD1 meter installation of air		$\checkmark$	$\checkmark$
22.	commission U65 to MI's and:		√	
	(i) observe meter for faulty operation			
	(ii) apply necessary notices and labels			
23.	set meter regulator and seal		$\checkmark$	
24.	remove commissioning filter/strainer. Re-test and purge.	17.1.4	$\checkmark$	
25.	check meter and associated pipework and fittings use appropriate materials	IGEM/GM/6 Section 10		$\checkmark$
	and jointing agents, to MIs and normative documents	& MI's		
26.	check installation pipework and fittings use appropriate materials and jointing agents, to MIs and normative documents	10.3		√
27.	check valves, controls, filters, regulators, flanges, and other appropriate gas safety	IGEM/GM/6 Section 9		$\checkmark$
	fittings and equipment use appropriate materials and jointing agents, to MIs and	& MI's		
28.	normative documents check valves, controls, filters, regulators for correct and safe operation	9.2.3 -		<b>√</b>
		9.2.5.3		
29.	identify gas safety faults on valves, controls, filters, regulators	17.2.2		<b>√</b>
30.	identify suitable/unsuitable meter locations (specific to assessment)			√
31.	identify unsafe installations (AR, ID )	GIUSP		$\sqrt{}$
32.	attach correct labels and complete warning notices/certificates	IGEM/GM/6 Section 18		$\checkmark$
33.	verify newly installed pipework between ECV and outlet of regulator for MOP > 75			$\checkmark$
	mbar			

KNO	WLEDGE AND UNDERSTANDING	REF	I	
1.	completion of commissioning reports			
1(a).				
	(i) containing a by-pass of the meter and/or of the regulator			
	(ii) not of Standard Design			$\checkmark$
	(iii) outside pressure and design capacity scopes			
	(iv) having non-standard appliances fitted downstream			
1(b).				
	design of any purpose-built housing			
2.	labelling			
3.	cross bonding for meter installations			
4.	routine maintenance of meters			
5.				
6.	routine maintenance of filters and strainers			
7.	recognition of meter faults			
8.	safety requirements for removal of meters			
9.	documentation when opening by-pass valves			
10.	sealing meter regulators			
11.	provision of MOV			
12.	pressure terms used in IGEM/GM/6 Edition 2			