

**Ofgem MAMCoP Scheme Management Board Meeting
8th Meeting
10:30 am, Wednesday 18 October 2006, at Ofgem, London**

Present	On behalf of	Representing
Steve Brown		Ofgem (Chair)
Steve Rowe		OFGEM
Mark Baldock		OFGEM
Stephanie Wong		OFGEM
Bob Murray		AIGT
Mike Buss		BSI
Keith Needham		Corgi
Phil Daniels		Corgi
Trevor Smallpeice		Corgi
Steve Fraser		ECO (I&C MAMs)
Andrew Keogh	Mick Curtis	Gas Forum
Nicola Wade		HSE
Steve Fraser		I&C MAMs
Dave Sharp		IGEM
Barry Cook		NGT
Colette Baldwin	Mark Pitchford	Powergen
Robert Smyth	Dominic Cummings	Scotia Gas Networks
Steve Brand		United Utilities

1. Apologies for absence

Dave Ainsworth, Dave Perriam, Dominic Cummings, John Dale, Mick Curtis, Phil Kershaw

2. Minutes of last meeting and matters arising (not covered on agenda)

Steve Brown (SB) opened the meeting and welcomed attendees. He introduced Steve Rowe who will be taking over as the chair for future MAMCoP meeting.

No comments about the minutes of the previous meeting and was approved.

3. Review of Actions

SB reviewed actions from the previous meeting. (See Action Log).

Action (1) – Request to iGT

- List of contact will be posted on Ofgem’s website, IGT’s website and SPAA’s website.

ACTION (1): Stephanie Wong, Colette Baldwin

Action (2) – Generic Approval

- Forward report to Stephanie Wong (SW) by email for circulation.

ACTION (2): Phil Kershaw, Stephanie Wong

Action (3) – RGMA Baseline – Action Closed

Action (4) – REGT 2

- Forward ACS metering assessment documents to SW by email for circulation.

ACTION (3): Phil Daniel, Stephanie Wong

Action (5) – REGT 2 Progress – Action Closed

Action (6) – Meter Serial Number Formats

Barry Cook (BC) gave feed back at the meeting. He said that Meter Serial number format will not act as a barrier to the system. The main purpose is to track down the ownership of the meter. Mike Buss (MB) suggested raising the issues in the 'international group meeting'. The group raised the concern that ensuring compliance from with the EU member states may be an issue.

- BC forward relevant documents to MB for discussion in the 'international group meeting'.

ACTION (4): Barry Cook

Action (7) – Review of CoP 1/c

- Forward Gas Forum Views to SW by email for circulation.

ACTION (5): Mick Curtis

4. Reports

a. Lloyd's Register

In the absence of Terry Mundy, Steve Brown (SB) quoted the following:

All self certified MAMS are now accredited under the Ofgem registration scheme.

All the registered MAMs will be subject to a surveillance visit between November 06 and January 07, to ensure that the systems established and implemented and assessed as part of the initial assessment and registration process have been maintained. Whilst some MAMS were only accredited in July 06, it was agreed with Ofgem that the clock started ticking for all self certified MAMs at the same time, in terms of assessment and registration and therefore it was appropriate that all were subject to surveillance visits over the same period, rather than establishing a surveillance programme which was set at one year from registration.

The surveillance visits will be of 1 day duration and will comprise a review of one third of the assessment checklist. The full MAM system being subject to audit and review over the three year period.

We have received one further application for MAM registration, which we are progressing and that was from Scottish Gas Networks.

b. HSE

Nicola Wade (NW) provided a feedback on return of metering component pilot. This is to assist MAM's improving their incident investigation procedures. Successful pilots were run between National Grid ESP and Siemens and between United Utilities (ESP and metering departments) in recent months.

She noted that although there was not the need to return significant numbers of equipment, ESP's were content with the existing arrangement they had in place. MAM's advised that they found such returns useful. Therefore, ESP's are content for MAM's to approach them at the local level

to make suitable arrangements for returning replaced equipment linked to RIDDOR reports.

MAM's will need to discuss the return timescales with the ESP and agree collection times as ESP's are please to retain at the local depot but not indefinitely.

NW agreed to circulate contact details for the Emergency Service Providers for MAM's to liaise with regarding the return of replaced metering components involved in RIDDOR incidents. (Please find appendix F)

Action (6): Nicola Wade

NW provided update on the second stakeholder forum for the HSE Gas Review which held on 2nd October. Review consultants frontline provided feedback on their initial findings from discussions with the industry to the stakeholders who attend and obtained their views on the possible options for the future. She noted that the updates on the issues/options discussed will be placed on the HSE website under Domestic Gas 'Live Issues' soon.

NW provided feedback on RIDDORs. Few RIDDORs have been received by HSE operational policy section in recent months. NW was concerned that this does not reflect the true RIDDOR situation and unfortunately HSE was unable to identify all RIDDOR metering reports sent to the Incident Contact Centre. NW suggested that it would be useful if MAM's could feedback on the levels of RIDDOR reports which they are seeing including those from OAMI's who they may sub contract to. NW also suggested that it would be helpful if Lloyds would be able to incorporate RIDDOR as part of the audit and surveillance visits and feedback to MAMCoP. Trevor Smallpiece (TS) raised a question whether all the MAMs would be confident in seeing all the RIDDORs. NW said that the RIDDORs are usually dealt with by the OAMI and concluded that a good system would be required for the RIDDOR record. Steve Brown (SB) agreed to bring the issues forward to Terry Mundy (TM).

Action (7): Steve Brown

NW highlighted the issues regards to the All Party Parliamentary Gas Safety Group's recent report 'Shouting about a silent killer: raising carbon monoxide awareness'. She also provided the following link to access the mentioned publication and its summary:

<http://www.gassafetygroup.org.uk/publications.php>

NW highlighted that the report asked all parts of the industry to consider what it can do to raise public awareness of the CO issue. NW suggested that MAMCOP members should be aware of this as they may be asked what actions would be taken by metering companies regards to this issue.

c. CORGI

Phil Daniels (PD) circulated a table of the ACS Metering assessments in the meeting. He also provided an update on ACS Metering assessments (1st June 2006).

Steve Fraser (SF) raised a question regard to the flow chart existing in MAMCoP. DS and PD agreed to update the flow chart by next meeting. Please find the attachment in appendix E.

Action (8): Phil Daniel and Dave Sharp

d. BSI

Mike Buss (MB) provided an update on BSI standards. BS 6400 is fully published. Meter Standards have been completed.

e. IGEM

Dave Sharp (DS) provided an update as follow:

- **IGE/GM/8 Part 3 and Part 4. Non – domestic meter installations**
There will be delay in publication (mostly likely within the next two weeks) due to late comment from CORGI.
- **The relevant parts of GM/1 Edition 2**
It will be superseded upon publication of GM/8 Parts 3 and 4.
- **IGE/GM/6 Edition 2. Low pressure non-domestic meter installations**
There will be delay in publication. Draft has been produced. It will be published upon publication of Parts 3 and 4.
- **IGE/TD/4 Edition 4. Gas Services.**
There will be delay by numerous comments.
- **IGE/UP/1C. Testing and purging of meter installations.**
There will be delay in publication.
- **IGE/TD/15.**
Withdrawn
- **IGE/G/5. Gas in flats and other multi-dwelling buildings.**
DS highlighted that the requirements of G/5 have to be met in practice for gas in flats, which was not the case within the industry. Bob Murray (BM) suggested to set up a working group to resolve the issues of meter labelling. Steve Brown (SB) suggested giving incentives to the developers who would take up the responsibilities. DS concluded that IGEM would fully support BM's idea.

5. MAMCoP Change Request 11 – Correct Baseline References

Colette Baldwin (CB) provided feedback on the SPAA RGMA Expert Group meeting. CB highlighted that iGT have not given any feedback regarded to the baseline issues.

Views from the MAMs:

- i. Bob Murray (BM) as a SPAA participant said that he would not vote to agree with the Schedule.
- ii. Steve Fraser (SF) strongly disagreed with the SPAA Metering Schedules documentation¹. SF mentioned that most commercial MAMs used IGEM excel spreadsheet file format for data communication and only handful did not. He concluded that by 4th November most MAMs would not be ready for the new obligations.
- iii. Steve Brand (SB) agreed with the schedule but not the file format.

Mark Baldock (MB) provided a short historical background on the baseline issues. There was a debate whether MAM's should comply with RGMA baseline. Andrew Keogh (AK) suggested that we would need a better understanding of the issues from both parties' points of view (I.e. iGT and SPAA committees).

The issue did not resolve in the meeting. MB will be attending AIGT meeting in November and followed up the issues.

6. MAMCoP Proposed amendments

Dave Sharp (DS) pointed out that there was an incorrect cross reference to gas supply licence condition for the section 3.2.5 of MAMCoP. He also

¹ CP_06_055_APP1.doc, 'SPAA Metering Scheldue'

highlighted that there is an inconsistency between MAMCoP and CoP. DS suggested an exercise of reviewing MAMCoP for twenty minutes. Steve Brown (SB) agreed that OFGEM will review MAMCoP with cross reference to Gas Supply Licence Conditions and other relevant conditions.

Action (9): Steve Rowe

7. Review final draft of CoP1/c

MAMs complained that they could not read the comments circulated in the document due to the group using different versions of MS Word. Steve Rowe (SR) suggested that comments could be sent out separately for the CoP 1/c document. The development of a CoP 1/d has been suggested, this essentially would be titled similar to CoP 1/a but for medium pressure installations

Action (10): Stephanie Wong

8. Unregulated meter installations

Steve Rowe (SR) raised a question to NW whether the exemption of pressure regulator (from the Gas Safety Regulation 14) can be authorised by OFGEM under GM8. NW replied that she would need to check and feedback later. She commented that this happened rarely. Dave Sharp (DS) confirmed that the exemption normally occur in large industrial or combined heat power (CHP or large boiler. Steve Brown (SB) suggested that Ofgem would review GM8 and take action appropriately latter.

NW advised that an exemption would not be relevant as GSIUR would not apply to an industrial installation.

Action(11):Steve Rowe

9. AOB

Nothing was discussed.

10.Date of next meeting

17th January 2007

<u>Action Ref</u>	<u>Issue</u>	<u>Date when issue originally raised</u>	<u>Action</u>	<u>Owner</u>
1	Request to iGTs - for a list of contact information and if they would be prepared to use template for GM8 & providing training for iGTs on GM8	19/01/2006	Add a list of iGT contact on OFGEM website ,iGT website and SPAA website	Ofgem (SW) AIGT (JD) SAIC (CB)
2	Generic Approval – Revising timescales	19/01/2006	(a) Forward report to SW by email (b) Circulate report	(a) NGG (PK) (b) Ofgem(SW)
3	REGT 2 - ACS Metering Assessments	03/05/2006	(a) Forward ACS metering assessment documents to SW by email (b) Circulate ACS metering assessment documents	(a) CORGI (PD) (b)Ofgem(SW)
4	Meter Serial Number Formats	12/07/2006	Issues will be forward to MB for discussion in ‘international group meeting’	NGG (BC)
5	Review of CoP 1/c	12/07/2006	(a) Forward Gas Forum View to SW by email (b) Circulate Gas Forum View	(a) Gas Forum (MC) (b) Ofgem (SW)
6	Emergency Service Provider (ESP) Contact	18/10/2006	Circulate ESP contact details	HSC (NW)
7	RIDDOR Assessment	18/10/2006	Bring forward the issues of incorporating RIDDOR as part of the audit and surveillance visits to Terry Mundy	OFGEM (SB)
8	MAMCoP Proposed Amendments	18/10/2006	Update the flowchart from MAMCoP	CORGI (PD) IGEM (DS)
9	Review MAMCoP and CoP	18/10/2006	Review MAMCoP with cross reference to Gas Supply Licence Conditions and other relevant conditions.	OFGEM (SR)
10	CoP 1/c	18/10/2006	Circulate latest version of CoP1/c	OFGEM(SW)
11	Unregulated meter installations	18/10/2006	Review GM8 and take action appropriately latter	OFGEM(SR)

Appendix A – ‘ACS Metering Assessments’ provided by Phil Daniel

ACS METERING ASSESSMENTS

Following the issuing of the ‘Draft ACS Assessment REGT2’ at our recent meeting, I would welcome any comments/ suggested amendments to the criteria contained in the document.

As mentioned at the meeting I have some concern over both the provisions required for the assessment & ability for centres to deliver.

I would again welcome your views on the following items to ensure that the assessment meets industry requirements in this important sector:-

- The minimum acceptable size of pipework & controls necessary to make a meaningful assessment for non-domestic medium pressure meter installations
- An idea of the possible cost requirements for the assessment provision
- Acceptability of a single stream set up for assessment with the requirements for twin streaming being covered by knowledge and understanding questions
- The assumption that the medium pressure control train will be supplied pre-assembled and certificated for strength testing as is the current domestic inlet strap with regulator
- If above is not the case how on site strength testing could be easily applied
- Availability of training for trainers/assessors at centres
- The ability to carryout the necessary control checks using compressed air to minimise risks at centres.
- Availability of a suitable installations to trial the draft assessment criteria.

Regards Phil Daniels
pdaniels@corqi-group.com

Appendix B – 'REGT 2' provided by Phil Daniel

NATIONALLY ACCREDITED CERTIFICATION SCHEME FOR INDIVIDUAL GAS FITTING OPERATIVES

REGT2.

EMERGENCY SERVICE PROVIDER & METER INSTALLER INITIAL ASSESSMENT CRITERIA

REGT2. Installation, Testing & Commissioning Non-Domestic Medium Pressure Meter Regulators & Controls

(Flow rate exceeding 6m³h⁻¹ & inlet pressure not exceeding 2bar)

Gas type: Natural Gas Only

Introduction:	This Gas Safety Assessment is designed to test the gas safety competence of an operative in the work of installing, testing & commissioning non-domestic medium pressure meter regulators & controls by both a practical & knowledge & understanding assessment.
Range:	Installing, testing, purging & commissioning all types of non-domestic medium pressure meter regulators & controls for gas supply meter installations.
Pre-requisite to this Assessment:	Before this assessment can be undertaken, the candidate must hold a Certificate of Competence in the following:- ACS Cores:- COCN 1. or CMA 1. Non-Domestic meter assessments:- MET4. or CMET1. or CMET2. Non-Domestic Tightness Testing:- IGE/UP/1 or IGE/UP/1C.
Noted Exclusions:	This assessment will not assess installing, testing & commissioning domestic or non-domestic low pressures gas meter regulators, domestic medium pressure regulators (see REGT1.) or any regulator where the MOP is in excess of 2bar.
Normative Documents:	The assessment design must be based on the following specific documents:- <ul style="list-style-type: none">• The Gas Safety (Installation & Use) Regulations & Guidance – Refer to Glossary of Terms.• IGE/UP/I. Tightness testing & purging of domestic sized NG installations.• The Gas Industry Unsafe Situations Procedure.• IGE/GM/8 Non-domestic meter installations. Part 1. Design

- IGE/GM/8 Non-domestic meter installations. Part 2. Locations, housings & compounds
- IGE/GM/8 Non-domestic meter installations. Part 3. Fabrication, installation, testing & commissioning
- IGE/GM/8 Non-domestic meter installations. Part 4. Operation & maintenance
- IGE/GM/8 Non-domestic meter installations. Part 5. Notices & labels

NATIONALLY ACCREDITED CERTIFICATION SCHEME FOR INDIVIDUAL GAS FITTING OPERATIVES

REGT2. EMERGENCY SERVICE PROVIDER & METER INSTALLER INITIAL ASSESSMENT CRITERIA

REGT2. Installation Testing & Commissioning Non-Domestic Medium Pressure Meter Regulators & Controls

Satisfactory completion of the assessment in this competency will provide evidence of competence in Installing, testing & commissioning non-domestic medium pressure meter regulators & controls for natural gas supply meter installations.

PERFORMANCE CRITERIA :	
1. details of the installation design is obtained & studied	(IGE/GM/8 Part3 5.3)
2. the correct information concerning the network to which the installation is to be connected to has been obtained	(IGE/GM/8 Part3 5.2)
3. details for the settings for the meter regulators, creep relief, monitor regulators & slam shuts as appropriate are available	(IGE/GM/8 Part3 5.3)
4. the selected location is suitable for installation as per IGE/GM/8 Part 2 & pre-installation check is carried out	(IGE/GM/8 Part3 5.4 & 10.1)
5. non-domestic medium pressure control train (regulators, valves, safety devices & the inlet assembly) have been strength tested at a minimum pressure of 3 bar	(IGE/GM/8 Part3 5.3)
6. a certificate confirming the date & results of the strength test is attached to the inlet control train assembly	(IGE/GM/8 Part3 5.3)
7. regulators, valves & safety devices are correctly identified & assembled in accordance with manufacturers' requirements & system design plan to IGE/GM/8 Part1.	(IGE/GM/8 Part3 12.2)
8. pipe & equipment supports are installed in accordance with IGE/GM/8 Part 1.	(IGE/GM/8 Part3 12.2.6)
9. screwed pipework & flanges are correctly sealed using appropriate jointing material	(IGE/GM/8 Part3 12.4/5)
10. the installation is gas tight	(IGE/GM/8 Part3 14.10)
11. pre-commissioning checks are correctly carried out	(IGE/GM/8 Part3 15)
12. the installation is correctly purged & commissioned	(IGE/GM/8 Part3 16)
13. functionality tests are correctly carried out on train controls in accordance with manufacturer's instructions	(IGE/GM/8 Part3 18 & Table 1)
14. Commissioning - General	(IGE/GM/8 Part3 19.1)
i. all components are checked to be functioning correctly in line with manufacturer's instructions	
ii. safety system control's pressures are set & tested prior to regulators	
iii. regulators are operating in full control prior to opening outlet valves	
iv. set points of pilot, controller & regulators is checked under flow conditions if possible (each stream is checked where appropriate)	
Set Points – Metering Pressure 21mbar – Single Steam Meter Installation – Figures 20/21 IGE/GM/8 Part 1.	(IGE/GM/8 Part3 19.2)
i. set active regulator at set point (21mbar)	
ii. set monitor regulator above active regulator (take into account accuracy of class of regulator) (23mbar)	
iii. set relief valve above the monitor regulator (take into account accuracy of class of relief valve & monitor regulator) (35mbar)	
iv. set the SSV above the relief valve set pressure (take into account accuracy of class of relief valve & SSV to ensure relief valve is not restricted) (47.5mbar)	

v.	the SSV set point plus accuracy group tolerance (MIP) does not exceed STP of downstream system	
vi.	consideration has been given to control accuracy at the meter when accuracy classes for regulators was selected	(IGE/GM/8 Part1 Table 4 or5)
15.	notices & labels are displayed in accordance with IGE/GM/8 Part 5	(IGE/GM/8 Part3 19.9)
16.	regulators & safety devices have been correctly sealed	(IGE/GM/8 Part3 Appendix 6)
KNOWLEDGE & UNDERSTANDING		
The candidate must be able correctly to answer gas safety questions in the following topics relating to install, test & commission non-domestic medium pressure gas meter regulators & controls.		
CRITERIA:		
1.	the use of temporary filters & strainers for commissioning IGE/GM/8 Part 1. 8.4	(IGE/GM/8 Part3 15)
2.	impulse & auxiliary pipework requirements	(IGE/GM/8 Part3 12.6)
3.	specific requirements for medium pressure diaphragm meters	(IGE/GM/8 Part3 19.4)
4.	specific requirements for medium pressure RD & Turbine meters	(IGE/GM/8 Part3 19.5)
5.	requirements for instrumentation commissioning	(IGE/GM/8 Part3 19.6)
6.	handover requirements	(IGE/GM/8 Part3 21)
7.	acronyms, abbreviations units & symbols used in the standard	(IGE/GM/8 Part3 Appendix 1.)
8.	understanding of the NGT standard operating conditions	(IGE/GM/8 Part3 Appendix 3)
9.	completion of the minimum information manual	(IGE/GM/8 Part3 Appendix 4)
10.	types of seals used for non-domestic medium pressure regulators & safety controls on meter installations	(IGE/GM/8 Part3 Appendix 6)
11.	maintenance requirements for non domestic medium pressure regulators & safety controls on meter installations	(IGE/GM/8 Part4 5)

Appendix C – ‘ACS certification contact details’ provided by Phil Daniel

**NATIONALLY ACCREDITED CERTIFICATION SCHEME FOR
INDIVIDUAL GAS FITTING OPERATIVES**

ACCREDITED CERTIFICATION BODIES CONTACT DETAILS

For information regarding ACS certification find contact details below.

<p>NIC Certification Duncan Valance (Scheme Manager), Unit 3 The Gas Laboratory Whitting Valley Road Old Whittington Chesterfield S41 9EY Tele: Freephone 0500 600 545, Main Office 01246 269 048 Fax: 01246 269 049 Email: brett.forster@niccertification.com Web: www.niccertification.com</p>	<p>ERS John Senders (Senior Executive) Europa House Coney Green Business Centre Wingfield View Coney Green Business Park Clay Cross Chesterfield S45 9JW Tele: 01246 252 310 Email: enquiries@ers-certification.org Web: www.erscertification.org</p>
<p>BPEC, British Plumbing Employers Council, Richard Phipps (Scheme Manager), 12 Ensign House, Ensign Business Centre, Westwood Way, Coventry CV4 8JA. Tele: 024 7642 0970 Email: bpeccld@btconnect.com Web: www.bpecc.co.uk</p>	<p>Blue Flame Certification Richard Payne (Scheme Manager) Unit 8 Network Centre Millennium Way High Carr Business Park Newcastle Under Lyme ST5 7XE Tele: 01782 576 811 Email: blueflamecert@aol.com Web: www.blueflamecertification.co.uk</p>
<p>CITB, Construction Skills Steve Smith, Scheme Manager, CITB HQ, Bircham Newton, Kings Lynn, Norfolk PE31 6 RH. Tele: 01485 577700 Email: steve.smith@citb.co.uk Web: www.citb.co.uk</p>	<p>Logic Certification John Martin (Scheme Manager) Unit 2 1 Rowdell Road Northolt Middlesex UB5 5QR Tele: 0208 839 2439 Email: enquiries@gaslogic.com Web: www.logiccertification.com</p>
<p>UK Certification Karl Martin, Scheme Manager Unit 5 Station Close Westover Trading Estate Langport Somerset TA10 9RB Tele: 01458 252757 Email: ukcertifications@btconnect.com Web:</p>	

Appendix D – ‘ACS Assessment Code October 2006’ provided by Dave Sharp

ACS & ALIGNED S/NVQ ASSESSMENT REQUIREMENTS FOR OFGEM APPROVED GAS METER INSTALLERS (NATURAL GAS)

ACS & ALIGNED NVQ (SQA equivalent) ASSESSMENT CODES AND DESCRIPTIONS

CODE	DESCRIPTION
ACS CORE ASSESSMENTS MOST SUITABLE FOR METER INSTALLERS	
CCN 1.	CORE DOMESTIC GAS SAFETY ASSESSMENT
CMA 1.	CORE GAS SAFETY ASSESSMENT FOR METER INSTALLERS
CMA 2LS.	CORE DOMESTIC GAS SAFETY ASSESSMENT FOR METER INSTALLERS (LIMITED SCOPE)
CESP 1.	CORE EMERGENCY SERVICE PROVIDER
CoDNESP 1.	CHANGEOVER CORE DOMESTIC NATURAL GAS TO EMERGENCY SERVICE PROVIDER
ACS METER/INSTALLATION ASSESSMENTS	
MET 1.	INSTALL, EXCHANGE, REMOVE AND COMMISSION PRIMARY AND SECONDARY DOMESTIC METERS UP TO 6m ³ CAPACITY
MET 2.	INSTALL, EXCHANGE, REMOVE & COMMISSION PRIMARY DOMESTIC METERS UP TO 6m ³ CAPACITY
MET 3LS.	INSTALL AND COMMISSION NEW FIX PRIMARY DOMESTIC METERS UP TO 6m ³ CAPACITY (LIMITED SCOPE) (Sealed at the meter outlet with no connection made to installation pipework)
REGT 1.	TESTING OF DOMESTIC MEDIUM PRESSURE REGULATORS AND ASSOCIATED CONTROLS <i>Amended in line with BS.6400 Part 2 (2006) & IGE/UP/1B Edition 2)</i>
MET 4.	INSTALL, EXCHANGE, REMOVE & COMMISSION DIAPHRAGM GAS METERS UP TO 40m ³ CAPACITY & PIPEWORK UP TO 2 INCHES DIAMETER FITTED WITH ANACONDA CONNECTIONS
TPCP 1A.	TESTING & PURGING OF LOW PRESSURE PIPEWORK NOT EXCEEDING 1m ³ IN VOLUME, 21 mbar OPERATING PRESSURE - NG
CMET 1.	INSTALL, EXCHANGE, REMOVE & COMMISSION DIAPHRAGM & RPD METERS
CMET 2.	INSTALL, EXCHANGE, REMOVE & COMMISSION DIAPHRAGM, RPD & TURBINE METERS UP TO 7 BAR
ICPN 1.	INSTALLATION OF PIPEWORK BETWEEN 28mm AND 150mm DIAMETER
TPCP 1.	STRENGTH TESTING, TIGHTNESS TESTING & DIRECT PURGING OF COMMERCIAL AND INDUSTRIAL PIPEWORK EXCEEDING 1m ³ IN VOLUME, UP TO 16 bar OPERATING PRESSURE
REGT 2. Draft out for comment	TESTING OF NON DOMESTIC MEDIUM PRESSURE REGULATORS AND ASSOCIATED CONTROLS
CMIT 1.	LIMITED SCOPE CORE & ASSESSMENT GAS METER INSTRUMENTATION OPERATIVE
S/NVQ ASSESSMENT CODES FOR METER INSTALLERS (City & Guilds NVQ Complex No's in Black - SQA in Blue)	

6012-22/63	APPLIANCE PATHWAY ROUTE FOR LOW PRESSURE METERS UP TO 6m ³ CAPACITY {Level II}
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6012-32/73	APPLIANCE PATHWAY ROUTE FOR MEDIUM PRESSURE METERS UP TO 6m ³ CAPACITY {Level III}
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**ALTERNATIVE ACS CORES THAT CAN WITH APPROPRIATE METER/INSTALLTION ASSESSMENTS
SUPPORT LIMITED COMMERCIAL METER WORK IN THE SECTOR THEY SUPPORT
i.e. COMMERCIAL HEATING, COMMERCIAL CATERING, COMMERCIAL LAUNDRY**

COCN 1.	CORE COMMERCIAL HEATING GAS SAFETY ASSESSMENT
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CCN 1. & CoDNCO 1.	CORE DOMESTIC GAS SAFETY ASSESSMENT CRITERIA & CHANGEOVER CORE DOMESTIC NG TO COMMERCIAL HEATING NG
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CCCN 1.	CORE COMMERCIAL CATERING GAS SAFETY ASSESSMENT
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CCN 1. & CoDC 1.	CORE DOMESTIC GAS SAFETY ASSESSMENT CRITERIA & CHANGEOVER CORE DOMESTIC NG TO COMMERCIAL CATERING NG
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CCLNG 1.	CORE COMMERCIAL LAUNDRY GAS SAFETY ASSESSMENT
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CCN 1. & CoCCLNG 1.	CORE DOMESTIC GAS SAFETY ASSESSMENT CRITERIA & CHANGEOVER CORE DOMESTIC NG TO COMMERCIAL LAUNDRY NG
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S/NVQ ASSESSMENT CODES FOR METER INSTALLERS (City & Guilds NVQ Complex No's in Black - SQA in Blue)

6012-22/63	APPLIANCE PATHWAY ROUTE FOR LOW PRESSURE METERS UP TO 6m ³ CAPACITY {Level II}
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6012-32/73	APPLIANCE PATHWAY ROUTE FOR MEDIUM PRESSURE METERS UP TO 6m ³ CAPACITY & LOW PRESSURE METER INSTALLATIONS UP TO 40m ³ CAPACITY FITTED ON ANACONDAS {Level III}
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**ALTERNATIVE S/NVQ ASSESSMENT CODES THAT WILL SUPPORT METER INSTALLATIONS
(City & Guilds NVQ Complex No's in Black - SQA in Blue)**

6012-02/60	LOW PRESSURE METER INSTALLATIONS UP TO 6m ³ CAPACITY {Level II}
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6012-03/70	MEDIUM PRESSURE METER INSTALLATIONS UP TO 6m ³ CAPACITY & LOW PRESSURE METER INSTALLATIONS UP TO 40m ³ CAPACITY FITTED ON ANACONDAS {Level III}
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6012-04/80	EMERGENCY SERVICE OPERATIONS COVERING MEDIUM PRESSURE METER INSTALLATIONS UP TO 6m ³ & LOW PRESSURE METER INSTALLATIONS UP TO 40m ³ FITTED ON ANACONDAS {Level III}
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**RE-CERTIFICATION OF ALTERNATIVE S/NVQ ASSESSMENT CODES THAT WILL SUPPORT METER
INSTALLATIONS
(City & Guilds NVQ Complex No's in Black - SQA in Blue)
Operative must have previously held 6012-04/80**

6012-44/80 Re-Certification	EMERGENCY SERVICE OPERATIONS COVERING MEDIUM PRESSURE METER INSTALLATIONS UP TO 6m ³ & LOW PRESSURE METER INSTALLATIONS UP TO 40m ³ FITTED ON ANACONDAS {Level III}
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ACS ASSESSMENT CRITERIA FOR GAS METER INSTALLERS

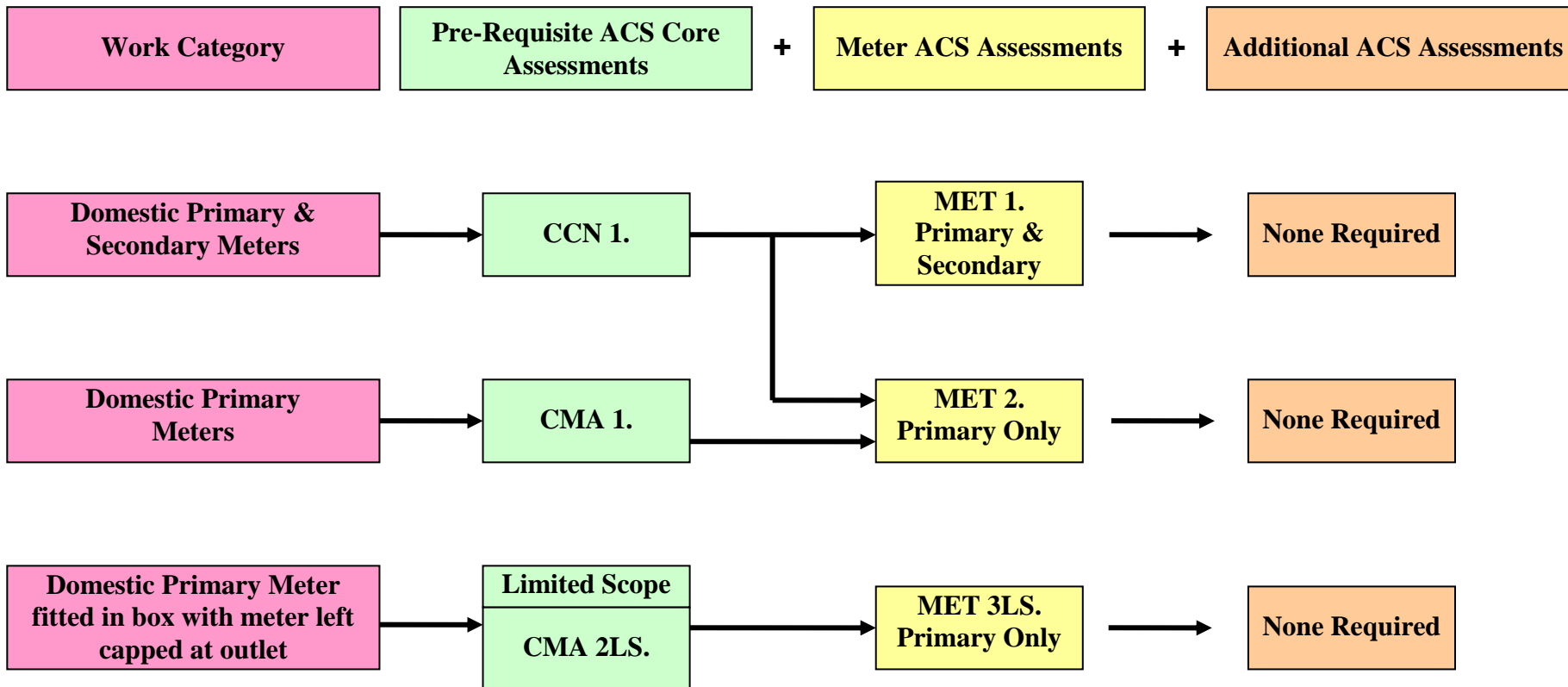


Chart 1. Low Pressure Domestic – Standard Installations
 $Q_{max} \leq 6m^3/hr$ MOP ≤ 75 mbar
 (MAMCop Work Category 1)

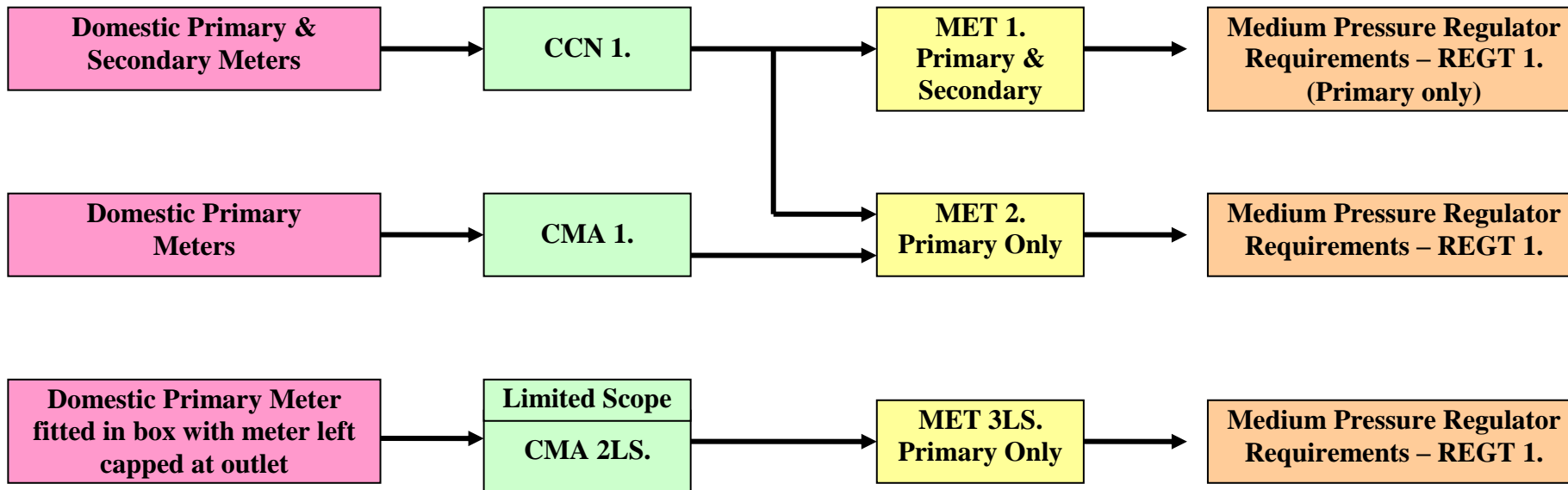
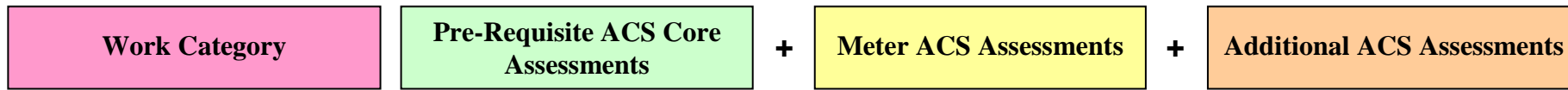
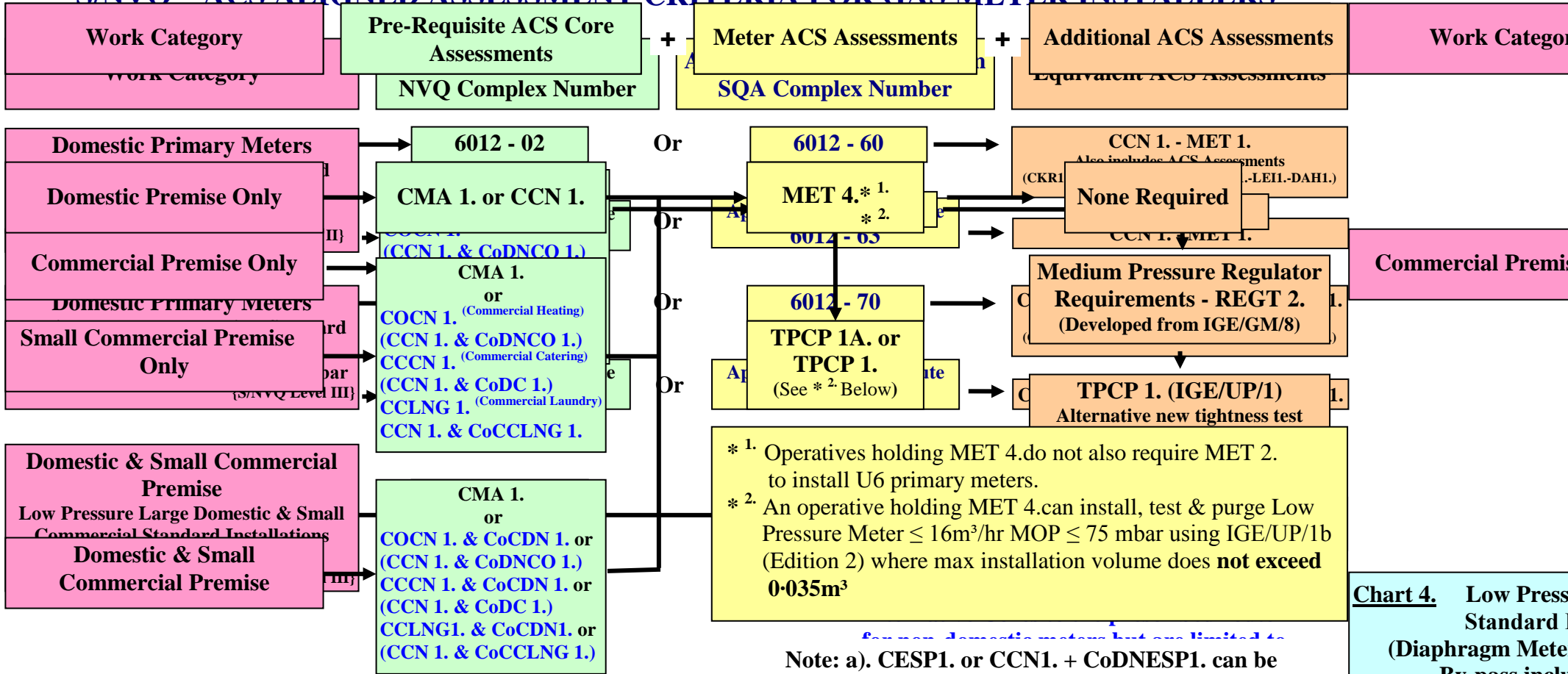


Chart 2. Medium Pressure Domestic – Standard Installations
 $Q_{max} \leq 6\text{m}^3/\text{hr}$ $MOP \geq 75\text{ mbar} \leq 2\text{ bar}$
 (MAMCop Work Category 2)

Note: CESP1. or CCN1. + CoDNESP1. can be used as an alternative core to CMA1.

S/NVO – ACS ALIGNED ASSESSMENT CRITERIA FOR GAS METER INSTALLERS



Note: This currently is the full range of 'S/NVQ - ACS Aligned

Note: a). CESP1. or CCN1. + CoDNESP1. can be used as an alternative core to CMA1.

Note: b). ACS assessment codes in blue are alternative Cores to the prescribed route for non-domestic meters but are limited to the sector they support i.e. Heating, Catering, Laundry.

Assessments may be developed if identified by industry

or Ofgem.

Chart 3. Low Pressure Large Domestic & Small Commercial Standard Installations Q_{max} ≥ 6m³/hr MOP ≤ 75 mbar
 (Diaphragm Meters up to U40 fitted on anacondas including Testing & Purging of Natural gas low pressure installations up to 1m³ in volume using IGE/UP/1A {ACS TPCP1A.} unless * 2 applies) (MAMCop Work Category 3)

Chart 4. Low Pressure Standard Installations (Diaphragm Meters) By-pass including low pressure installations

Appendix G – AIGT MAMCoP Contact list provided by John Dale

AIGT MAMCoP Contact List

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