

12th MAMCoP Board Meeting

Quarterly meeting of the MAMCoP Scheme management board	From	11.30 am – 2.30 pm
	Date and time of Meeting	[16/October/2007 11.30 am]
	Location	[OFGEM Boardroom]

Attendees List:

Present	Representing
Stephen Rowe	OFGEM (Chair)
Hassan Khan	OFGEM
Bob Murray	AI GT
Steve Gandy	Siemens
Steve Brand	United Utilities PLC
Dominic Cummings	Scotia Gas Networks
John Heyburn	Scotia Gas Networks
Phil Daniels	Corgi
Trevor Smallpeice	Corgi
Mike Buss	Actaris
Steve Hayden	Lloyd's Register
Tom Chevalier	Power Data Associates
Mick Curtis	Energy Market Consulting Company
Jim Sibley	Advantica
Dina Mihsein	National Grid
Ian Smith	IGEM
Steve Mulinganie	UKME
Iain Heffey	National Grid Metering
Colin Townsend	Wales and West Utilities
Dave Perriam	Wales and West Utilities

1. Apologies

- 1.1. Annette Bunn, Alan Smith, David Ainsworth, Barry Cook, Keith Needham, Nicola Wade, Peter Fawbert, Richard Marsh, Terry Mundy

2. Minutes of 11th meeting and matters arising (not covered on agenda)

- 2.1. Steve updated the group on the recent developments associated with the formal transfer of legal responsibilities to NWML and that the energy bill will be vehicle for this. It is likely that the formal transfer will take place early 2009.

3. Review of Actions

- 3.1. SR reviewed actions from the previous meeting. (See Action Log)

Action (1) – Review of MAMCoP and Cop 1a/b /c

1. Steve Rowe is working closely with Corgi on this issue (Trevor Smallpeice will be giving a presentation on this and closely related matters). Currently no progress has been made on the development of the MAMCoP . Comments have been received on the developments of the OAMI COP's

Person – By

**Action (1):
Steve Rowe**

Action (2/3) – Update on Appeal Process

1. A number of concerns have been raised regarding the legal terminology used in the document, it has been reviewed by Ofgem's

Action (2):

lawyers and an updated version will be distributed in due course.

2. Bob Murray questioned whether their input will be considered and if not they haven't received any responses from the OFGEM legal teams. Steve replied that their input will be considered, prior to circulating to the wider group.
3. Bob mentioned that the appeals process and enforcement in HSE will considerably affect AIGT and Steve Brand asked about the legal part in the document and questioned whether the clarity of the legal terms will be amended and how long would this take? Steve Rowe confirmed that the appeals procedure will be issued prior to the next MAMCoP board meeting.

Steve Rowe

Action (4) – Submission to ACS Scheme Committee to develop assessment criteria to cover IGE/GM/8 (REGT 2. Draft)

1. Phil Daniels stated that, The Scheme Committee will be holding their next meeting in November 2007 where final approval is being sort & if agreed the assessment will be made available to Centres to deliver. After this meeting the action will be closed.
2. The Vent stack requirement for I&C metering is covered in GM/8 and is defined in GM/7.

Action - Closed

Action (5) – SPAA Update

1. Steve Rowe met with John Dixon regarding this issue, after this he wrote to various board members, requesting that any specific concerns be sent in writing to Jon Dixon.
2. If there are any comments regarding this action pass them on to Steve, otherwise this action will be closed.
3. Jim Sibley queried whether all members had to sign to SPAA and the response was no just domestic meters MAM's.
4. The SPAA is mandatory for domestic and currently is being adhered to on a voluntary basis by the I&C MAM's.
5. Steve Rowe is currently working with Nicola Wade to consider options on how to rectify the obligation to use an approved MAM for I&C.

Action - Closed

Action (6) – Action of HSE / Corgi to confirm requirement

1. Nicola Wade is away on leave and therefore Trevor Smallpeice delivered the briefing on this Action.
2. Barry Cook from National Grid Metering arranged for Nicola and Trevor to visit an I&C meter installation to investigate the setting and sealing of regulators. This is an alleged problem which is the responsibility of the meter installer.
3. Concerns have been raised about meter regulators that aren't set before being used.
4. The board asked Nicola to report / explain the legal aspects of this area as they understood.
5. Mick Curtis mentioned that there was a problem with the GT1 process as it was difficult getting hold of information.
6. In reply Dina Mihsein mentioned that all the communication processes were covered by GM/8-GM/6.
7. Ian mentioned that these issues were all hidden away in GM/8 and GM/6, and would be more beneficial if they brought these out in the CoPs. If this is done it will have an effect on the MAM's and will make clear to them what is an I&C issue and what is not.

**Action (3) –
Nicola Wade**

Action (7) – Equipotential Bonding

Dave Perriam gave an update on the trials that were conducted in WWU, and confirmed that the delivery and programme was well

received by the operatives and that it is up to the MAM's to ensure that their operatives can demonstrate competence through appropriate training and experience. It was considered that this course met the training requirements.

4. Review of Ofgem OAMI scheme and update on CoP development

- 4.1. Steve mentioned the best way to move forward with regards to this matter is for Ofgem to work closely with CORGI. Trevor has agreed to take a lead on this and gave a presentation on this topic to the board (Presentation is available in the appendix).
- 4.2. Ian mentioned that the technical content present in CoP's 1a, b and c was not needed as other institutions wrote the technical documents so suggested that it could be possible to consider this in the revision of the document?

Trevor Smallpeice agreed with Ian and said that there is no need for too much technical content and ideally should just point you in the right direction of the appropriate standards. Steve Rowe added that reducing the technical content was a useful suggestion that would not date the document from a technical perspective which could also be considered when revising the MAMCoP document.

- 4.3. Ian also stated that the CoP's referenced the IGEM standards but the IGEM standards have evolved and the CoP's haven't, any document that references them can become out of date as a result of revising IGEM documents. Jim considered that there was a communication problem in the CoP's and something needs to be done regarding this.

5. Reports

5.1. Lloyd's Register (Steve Hayden)

A.	Same number of MAM's registered as last time (16), the time for surveillance visits and undertaking new audits is approaching and should take place around November or December.
B.	One of the MAM's mentioned that their annual review last time took place in February and this time they received a letter saying it will take place in February again and this was causing disruptions within the business as the audits are being conducted more frequently than planned within the MAMCoP NFG.

5.2. HSE

A.	Not in attendance
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5.3. CORGI (Phil Daniels)

A.	Phil Daniels couldn't give a technical update on this topic as the CORGI IT are in the process of amending their computer system.
B.	At a recent meeting with Energy & Utility Skills (Sector Skills Council for electricity, gas, waste management & water) the development of NVQ's to cover the non-domestic sector of the gas industry was discussed, this could include an NVQ meter qualification for meter installers. EU skills would be seeking advice from metering

	experts for more information regarding the metering sector & their requirements.
C.	Steve Rowe asked how this was different to the qualification gained from City and Guilds? Phil replied by saying that the NVQ qualification currently available from City & Guilds covered the installation of domestic meters & this was supported with additional ACS qualification to cover the non-domestic sector.

5.4. BSI – Standard update(Jim Sibley)

A.	BSI 6000/3 was sent to the editor to be published.
B.	Jim attended the CEN committee meeting for gas meters and it was mentioned that the 5 gas meters were harmonised with the metering regulators. If there are any comments on this issue forward it on to Jim Sibley.

5.5. IGEM – Standard Update (Ian Smith)

A.	<p>GM/5 (Gas Volume Conversion System) is due to be released early 08.</p> <p>GM/6 will also be released early 08.</p> <p>TD/4 is already published.</p> <p>GL/8 edition 2 (Gas reporting incident) is already published.</p> <p>GM/7 meeting will be held in November for this currently there are two proposals one of them being a ventilating issue.</p> <p>See appendix for the proposed amendment document that Ian gave.</p>
B.	<p>Steve Rowe questioned with whom does the liability lie to maintain a pulse devise?</p> <p>Mick mentioned that this was a commercial issue and will cause a problem with the technical side of things. Steve mentioned that there was discussion among installers and maintainers that these devices did not require an MPU and he also raised the issue of commerciality.</p> <p>Ian also mentioned that there was a commercial agreement to cover the liability issue, there was also a misunderstanding that if a pulse didn't work or didn't exist then there was need for an MPU whereas this is wrong and practices need to evolve.</p>

6. Moving domestic meters (CORGI)

- 6.1. Trevor Smallpeice raised the issue of large companies who held a large refurbishment contract which often involved moving meters a short distance using the same length inlet; when doing this who would they need to inform? The BSI document says that they have to inform everyone who was initially involved with installing the meter, but realistically these companies are finding this difficult to do.

- 6.2. Mick mentioned that this only involved the connection/disconnection rights as long as long as they weren't altering the service and were just moving the meter to a different place. If it was disconnected for a longer period of time (1 day) then they would have to inform the MAM as set out in the C&D regs.
- 6.3. Collin also added that the installers were boxing in the unit when installing it and getting access to the meter was difficult. Trevor mentioned that this was a competence issue and still did not answer the question of who to inform/gain permission.
- 6.4. It was also raised that if this was done within a day then only the GT will need to be informed, and the connection/disconnection form will not need to be completed.
- 6.5. Jim mentioned that the gas supplier and MAM will need to be informed if the meter is being relocated. The gas supplier can be contacted through the free phone number.
- 6.6. Trevor replied that the NG free-phone number would only give information to the gas customer which did not help the contractor.
- 6.7. Steve Brand mentioned that this issue is occurring more often, and the standards say that you have to ask for notification/permission from the asset owner and tell them you are carrying out the following work.
- 6.8. Dina Mihsein mentioned that larger installers should contact CORGI when moving the meters and this usually clarifies/resolves the issue.
- 6.9. It was also mentioned that if there was an incident due to the work carried out, and no one was notified then the MAM would have to do some investigation to protect their interests. So it was established that the MAM and the supplier MUST be informed.
- 6.10. Trevor again queried whether the free phone number on the back of the meter only gave information to the house owner and if they did the company carrying out the work would not be able to contact the gas supplier.
- 6.11. Dina Mihsein said she would action this and investigate whether the free-phone number gave information to anyone.

7. MAMCoP scheme management board appeals process

- 7.1. This agenda item was covered in the actions section.

8. Role of AMO and its involvement in the gas industry

- 8.1. Tom Chevalier gave a presentation on this agenda item please refer to the appendix to view the presentation.

9. AOB

- 9.1. Steve Gandy raised the issue of consultation of fitting handles (ECV handles). Steve mentioned that when their installers go out to an incident (e.g. customer query, safety check etc.) some meters don't have the ECV handles fitted so they have to inform the GDN's who come and fit a handle within 4 hours, however they don't put the supply back on . As a result the customer has to request the supply to be turned back on and

this causes frustration for the customer and the installer. Steve mentioned that if their installer were given the authority to install the handles and split pin this would save lot of time and money.

- 9.2. Steve also mentioned that National Grid offered to supply the handle and pins free of charge but when it comes to installing it the liability lies upon the maintainer which is not acceptable to the MAM's. Also the Network should know which ECV's don't have handles.
- 9.3. Steve Rowe also raised a safety concern about meters ECV without handles and pointed out that there should be away of tracking the meters. It was suggested that the meter reader should detect and report this as a part of the meter read and two yearly inspection.
- 9.4. The above point questions the competence/incentives of a meter reader as this should be detected and reported through this mechanism.
- 9.5. Dina Mihsein mentioned that as a result of GT2 site inspections they discovered that some sites had been fitted with newly installed meters, which they had not been made aware of. Dina wanted suggestions on how to enforce the suppliers to complete the GT2 process.
- 9.6. Steve Rowe asked how big this problem is and DM responded that this is a big problem as no records were found of the site / no labels. The sites that were found were by luck and need to be further investigated. It was also stated that the link between the XOSERVE and the meter installer should be established as this will give an idea who is complying with the GT2 and who isn't.

10. Date of next meeting

- 10.1. The date of the next meeting was confirmed on the 22nd January 2008.

Action Log

<u>Action Ref</u>	<u>Issue</u>	<u>Date when issue originally raised</u>	<u>Action</u>	<u>Owner</u>
1	Review MAMCoP and CoP 1a/b	18/10/2006	<ul style="list-style-type: none"> ✚ All Board members to review and comment upon the CoP1a/1b before the next MAMCoP Board Meeting ✚ Merge all the comments and circulate among MAMs. ✚ To ask Lloyds if they can provide some specific feedback on the MAM audit process in terms of areas that MAM's are performing well on and possible areas for improvement or additional guidance. 	ALL
2	Appeals Process for MAMCoP / AIGT	17/01/2007	SR circulate lawyer comments' in due course	OFGEM (SR)
3	Action of HSE / Corgi to confirm requirement		<p>Investigate the setting of regulator under I&U for gas transporters. Also installers were leaving meters capped on outlet and this was against the spirit of I&U.</p> <ul style="list-style-type: none"> ✚ The OAMI have to ensure the regulator is sealed, the meter is installed and the downstream pipe works. ✚ Corgi believes that something can not be commissioned without a regulator being set. 	Corgi HSE – (Nicola Wade)
4	Commissioning and auditing	16/10/07	<ul style="list-style-type: none"> ✚ Steve will provide an update on this issue. 	Lloyds Register– (Steve Hayden)
5	Technical Update from CORGI	16/10/07	<ul style="list-style-type: none"> ✚ Phil will provide a technical update on CORGI 	CORGI – (Paul Collins / Phil Daniels)
6	Moving Domestic meters and OAMI CoPs	16/10/07	<ul style="list-style-type: none"> ✚ An update on the issue of moving domestic meters (Trevor started it this meeting) ✚ Update on the OAMI CoPs 	CORGI – Trevor Smallpeice

<p>7</p>	<p>Information request from the free phone number on the back of meters.</p>	<p>16/10/07</p>	<p>✚ Dina will investigate whether the information requested from the phone number is only given to the house owner.</p>	<p>Dina Mihsein</p>
<p>8</p>	<p>Update on the issue of fitting handles and safety pins.</p>	<p>16/10/07</p>	<p>✚ Steve Gandy will give an update on the issue he raised on the fitting handles and safety pins.</p>	<p>Steve Gandy</p>
<p>9</p>	<p>GT2 site inspection and issue of installing meters without a warrant.</p>	<p>16/10/07</p>	<p>✚ Dina will brief the board regarding the issue of new connections being installed without a warrant.</p>	<p>National Grid - Dina Mihsein</p>

Appendix – 1 – Ian Smith (IGEM) – (MPU Document)

**THE INSTITUTION OF GAS ENGINEERS AND MANAGERS
TECHNICAL SERVICES PAPER**

NUMBER: IGE/TS/07/206
DATE: 16/10/07

COMMITTEE/PANEL:		PURPOSE:	
TCC		APPROVAL BY ??/??/??	✓
GMC	✓	COMMENT BY ??/??/??	
GSEC		COMMITTEE/PANEL DISCUSSION	✓
GTDC		INFORMATION ONLY	
GUC		OTHER	
AUDIT COMMITTEE			
MAMCoP MANAGEMENT BOARD	✓		

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COMMENTARY:

Proposed draft for comment of an amendment to IGE/GM/7 Edition 2.

nationalgrid

GM7 20071010 v06 Amendments

**PROPOSED AMENDMENT TO IGE/GM/7 EDITION 2,
METER PULSE UTILISATION (MPU) USERS**

SEPTEMBER 2007

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FOREWORD

This document was approved by Mark Burrows on XX/XX/2007 for release to IGEM for consideration by the Gas Measurement Committee meeting on XX/XX/2007.

PROPOSED AMENDMENT TO IGE/GM/7 EDITION 2

INTRODUCTION

This document seeks to address a number of aspects of Meter Pulse Utilisation work which are not currently considered by existing IGE documents and are therefore creating a number of practical and contractual issues for the MAM's and potential users of pulse outputs. This document is intended to facilitate the updating of IGE/GM/7 and to inform the development of an industry wide standard and accreditation scheme for installers.

1. SCOPE

1.1 Amend 2.1.2 and merge with 2.1.3

These procedures apply to meter installations carrying Natural Gas at a maximum operating pressure (MOP) not exceeding 100 bar and installed in accordance with IGE/GM/4, IGE/GM/6 or IGE/GM/8 as appropriate.

These procedures apply to liquid free.....(rest as is)

1.2 Add 2 Notes to clause 2.1.3

NOTE: Installations in domestic properties are subject to different regulations, the principle of this document and BS6400 are to be used.

NOTE: For large sites with telemetry and/or flow computers the principles of IGE/GM/7 may be applied, however such installations will need to be given individual consideration.

1.3 Amend 2.3.1

Add IGE/GM/4 to the list

2. GENERAL RULES

2.1 Amend 4.1

Electrical pulse input and output circuit design should be in accordance with Appendix 4.

Keep the existing 3 Notes.

2.2 Amend 6.1

Electrical equipment and instrumentation used in conjunction with a meter installation should not be installed in a Zone 0 hazardous area, and circuits connected with a meter installation should not be run through a Zone 0 hazardous area.

Whilst every effort needs to be made to isolate metering systems from Zone 0 areas, it is recognised that in a minority of cases, typically low pressure installations within main buildings, this may be unavoidable, in which case any equipment must be appropriately certified, and must be installed in a manner and location that enables the equipment to be accessed safely for maintenance and reading, e.g. via increased ventilation occurring when the housing doors are opened.

Note 1: This requirement is due to the obligation to ensure persons reasonably expected to have access to a metering system (e.g. the consumer, meter reader, etc.) will not be exposed to the potential hazard associated with a Zone 0 classification. It does not imply that suitably approved equipment will present a hazard.

Note 2: Guidance on the certification of equipment for use in Zone 0 hazardous areas is given in A3.10 and will be typically ATEX Category 1G/Exia. Where any cables are fed through a Zone 0 area they will either be directly associated with such a device, or will be fed via associated apparatus as described in A3.16, and will typically be ATEX Category 1G/[Exia].

2.3 Amend 6.2.2

When making an electrical connection to a meter, or any other equipment making use of a meter pulse output, all work shall be conducted by competent individuals holding an appropriate, independently accredited industry recognised qualification, e.g. ACS CMIT1LS, or equivalent.

Where the work involves breaking gas ways, the operation shall be carried out in accordance with the GS(I and U)R where those Regulations apply.

2.4 Renumber text of 6.5 to be 6.5.1 and amend

The pulse output is under the control of the MAM, as such before connecting any electrical equipment (including optical equipment) to a meter or meter installation, **written authorisation to do so shall be obtained from the MAM (see also Sub Section 3.7).**

2.5 Add new clause 6.5.2

Unless prior permission has been obtained, owners of volume converters and other electronic equipment affected by the connection/disconnection of equipment shall be notified in advance of the work being undertaken. No third party equipment shall be opened, interfered with or seals broken without prior permission from the owner of the equipment. Legal metrological seals must not be broken.

2.6 Amend 6.6.1

All electrical equipment and connections shall be installed in accordance with section 6 and Appendix 8, with due deference to the certification of the new and existing equipment and hazardous area zones identified. **Installation shall be in accordance with the manufacturer's instructions and must be in accordance with the requirements of electrical certification.**

2.7 Add new clause 6.6.4 (and renumber subsequent clauses)

Equipment, including any additional pulse output connectors, plugs, sockets or junction boxes etc., shall be suitable for the environment into which they are installed. Where they are mounted outdoors, equipment shall be weatherproof in accordance with the severity level IP 65 specified in EN 60529.

2.8 Amend 6.7.7

Where a meter output (LF or HF) is used, consideration shall be given to the most appropriate method of distributing the pulse(s) throughout various pieces of interconnecting equipment. **The guidance given in 6.7.8 and Appendix 8 should be followed, as long complex chains of equipment increase the likelihood of failure of the pulse.**

NOTE: In many cases the use of an isolating relay will be required.

Electrical equipment (including optical equipment) connected to a meter or meter installation should incorporate pulse retransmission or be connected in such away as to leave a pulse output available. Where the pulse output is configurable then it shall be configured prior to or during commissioning. If the output pulse is protected by a seal then the operative should provide a suitable connector outside of the protection of the seal.

Equipment installers shall make a pulse available to subsequent users, either at the time of installation or later in the event of a MAM approved request to connect. Consideration should be given to building the facility for providing an output pulse into the installation design. This may be via an output connector or appropriate junction box.

2.9 Add new clause 6.7.8

Equipment directly incorporated in the fiscal measurement chain should be given priority when connecting equipment, and wherever possible should be installed in a manner that minimises its dependency on other items of equipment.

Equipment should be grouped by ownership or responsibility, e.g. equipment operated by the MAM, including flow converters, Automatic Meter Reading (AMR) devices and the meter should be connected together as this simplifies the contractual relationships and fault finding processes.

Figure X provides a recommended hierarchy which should be followed.

NOTE 1: Network Operators may require access to the pulse to fulfil their Network Code or License obligations; their rights are second only to the MAM.

NOTE 2: Figure X takes the best practice from the examples shown in Appendix A8, is based on legal, contractual and practical considerations and is intended to remove any notion of first come first connected. Observing the hierarchy in this diagram will simplify the contractual arrangements and provide a robust fiscal chain.

Where the MAM has responsibility for the origin of the pulse chain, they shall inform all registered pulse users of any change to the pulse, e.g. repair, change in significance, imperial to metric or value multiplier, etc, that occurs as a result of their activities.

NOTE: Appendix 8 illustrates a number of interconnection examples with varying degrees of complexity and reliability; as long complex chains of equipment increase the likelihood of failure of the pulse and need to be avoided, particularly in the fiscal chain.

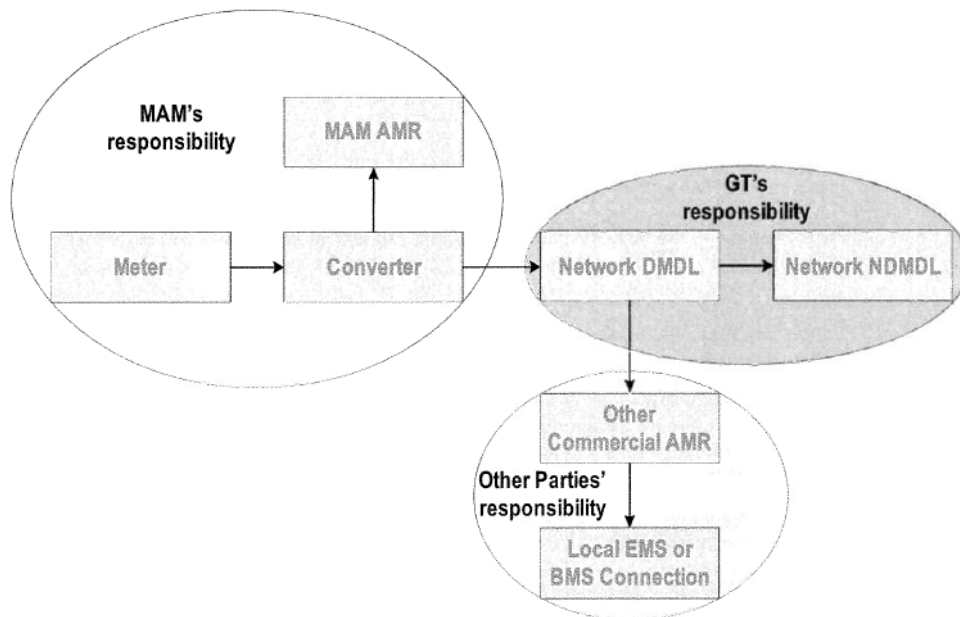


Figure X Recommended pulse Chain Hierarchy

2.10 **Add new clause 6.12**

The ownership of any electrical equipment (including optical equipment) connected to a meter or meter installation shall be clearly labelled on the device.

Any electrical equipment (including optical equipment) connected to a meter or meter installation which incorporates pulse retransmission shall be clearly labelled with the details of the pulse output, e.g. pulse significance, etc.

2.11 **Amend A8.1**

This Appendix offers technical guidance for the provision and interconnection of meter pulse data transmission equipment that will assist in the drafting of contractual agreements.

NOTE: *In this appendix, reference is made to "pulses" which is a common method of transferring data throughout a meter installation. However, the principles of the appendix will apply to other methods of data transfer, for example RS232, 4-20ma current loops, etc.*

If any part of the data system malfunctions, data may become corrupted, potentially leading to contractual problems. It is therefore essential that appropriate controls shall be applied to the installation, operation and maintenance of such equipment.

3. DETAILED REQUIREMENTS - DESIGN OF EQUIPMENT (ADD TO APPENDIX A4)

3.1 Amend A4.4

Ensure all equipment mimics the output from the meter on each of its outputs, and does not introduce any false pulses or lose an input pulse.

NOTE: The apparatus will be satisfactory if it.....

Pulse replication output shall meet the criteria in Table 6a and Table 6b.

Pulse input circuits should meet the requirements of Table 7.

3.2 Replace Table 6 with the following and the associated notes

Table 6a Requirements for pulses generated by output circuits - Parameters specific to solid state output devices (Editorial: all refs to notes in tables 6a and 6b are in this document)

Parameter	Value
V_{CE0} / V_{DS} (see note 1)	$\geq 24 \text{ V}$
I_C / I_D (see note 1)	$\geq 50 \text{ mA}$

Table 6b General requirements for pulses generated by output circuits

Parameter	Value
Voltage rating (see note 1)	$\geq 12 \text{ V}$
Current rating (see note 1)	$\geq 10 \text{ mA}$
U_i (see note 2)	$\geq 10 \text{ V}$
I_i (see note 2)	$\geq 10 \text{ mA}$
Voltage (V_{LO}) at logic 0 (see note 3)	$\leq 0.2 \text{ V}$
Expected voltage (see note 4)	3V6
Min current sink capability (see note 5)	1 μA
Max current sink capability (see note 6)	1 mA

Note 1: *These specifications relate to the minimum parameters of the output switching device, voltages and currents derived from modern electronic equipment (particularly battery powered) would normally be expected to be lower. Table 6a specifies the requirements for solid state devices which, for reasons of reliability, will be specified considerably above values normally expected in the field.*

Note 2: *These are the maximum voltage and current (in the meaning of BS EN 60079) that can be applied to the output circuits without invalidating intrinsic safety.*

Note 3: *This specification is the maximum allowed voltage across the output terminals when the output device is turned on and sinking the maximum current.*

Note 4: *This specification relates to the voltage typically generated by the apparatus into which the volume conversion device provides a pulse.*

Note 5: *This specification is the minimum current that the output device will be expected to sink in normal operation; i.e. the current generated from low power apparatus into which the volume conversion device provides a pulse.*

Note 6: *This specification is the maximum current that the output device will be expected to sink in normal operation; i.e. the current generated from higher power apparatus into which the volume conversion device provides a pulse.*

Note 7: *Where battery longevity may be compromised by long pulse widths a user option to select varying pulse widths may be provided.*

3.3 **Amend Table 7 to incorporate the existing Table 6**

4. INSTALLATION

4.1 Add to end of section 6 as new clause 6.12 Labelling

All MPU equipment shall be clearly labelled with the owner and contact details as well as connection details to the available pulse, including colour codes. MPU installer shall ensure that the information is current and correct.

The following standard colour code convention or labelled connections (socket pin-out or terminal block) should be used, see figures 1, 2 and 3.

Unconverted	Converted
[Colour 1] [Terminal/Pin 2]	[Colour 3] [Terminal/Pin 2]
[Colour 4] [Terminal/Pin 3]	[Colour 4] [Terminal/Pin 3]
Screen, [details]	

Any cabinets used to house equipment shall be labelled with the operator's details. Unless the interior of the cabinet is accessible to other users, spare pulses shall be made available outside the enclosure; also see 2.6.

4.2 Add into A8 or clause 6.6

Long series pulse chains should be avoided, the [third] user shall provide a second parallel pulse output (including converted if applicable) to avoid long series pulse chains.

5. RESPONSE TO FAILED OR FAULTY EQUIPMENT

5.1 Add to end of section 7 as new clause 7.3 response to failed equipment

MPU Users with outputs to other's equipment should endeavour to restore working pulses within 5 working days (this does not include meter or converter exchange).

Fault finding processes shall not involve the breaking of any third party (or metrological) seals without permission, the health of a pulse can be checked at unsecured locations such as junction boxes and unsealed barriers.

Equipment found to be inappropriately installed or faulty should be reported to the contacts on the equipment label, unlabelled equipment can be by-passed. Provided it is safe to do so any unsafe equipment should be by-passed and de-energised, the owner and the MAM should be informed.

6. REMOVAL

6.1 Add to end of section 7 as a new clause 7.4 Removal

When equipment is removed from the chain input and output equipment shall be connected through using appropriate junction boxes. The removing MPU User shall inform the MAM as a minimum and any other user affected in a significant way by the removal.

7. EARTHING

7.1 Make hard Xref to Appendix 7

Earthing shall be in accordance with the requirements of appendix 7 and the design of the equipment deployed.

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Appendix – 2 – Corgi Presentation (Trevor Smallpeice)



OAMI

ofgas ~ ofgem Approved Meter Installer

Regulate standards after the meter installation market was opened up to competition

To meet the Gas Suppliers Licence

To meet legislation and 'CORGI Requirements'

COP/1a – COP/1b – COP/1c were developed



OAMI

Codes of Practice – 1a – 1b – 1c

Started life 1995/1996

CORGI became the Agents for ofgas to administer the OAMI scheme

Ensure compliance to the Codes of Practice by regular Inspection

Revised to current document October 1998

Industry assistance to develop CoP's



OAMI - MAM

Meter Asset Managers (MAM) came into existence around 2004
To facilitate the competitive market for metering services

MAM's developed a Code of Practice - MAMCoP

Lloyds became the Agents for ofgem to administer the MAM scheme

MAM's have a 'Board' that meet regularly ~ OAMI do not

CORGI join the MAMCoP Board as 'Observers' and 'Advisors'
for ofgem and OAMI

These are two separate 'Schemes'

Administered for ofgem by two different Organisations



OAMI - MAM

An OAMI is responsible for the meter from taking possession of the asset to completion of installation, testing or disposal plus the timely passage and security of commercially sensitive data

Meter Asset Manager's have the overall responsibility for the whole life of a meter installation

Note: Not all MAM's are OAMI and not all OAMI are MAM's



OAMI - Future

CORGI to develop the ofgem Codes of Practice
1a – 1b – 1c

Thank you for MAMCoP Board feedback

Draft will be published for industry comment

- Aspirational date of for draft ~ End of January 2008

CORGI will continue to support – ofgem – OAMI – MAMCoP Board



OUTCOMES

- Safer gas work
- Improved meter installations
- Support for OAMI
- Support for ofgem
- Support for MAM's
- Support for MAMCoP Board



QUESTIONS?



Appendix – 3 – Presentation given by Tom Chevalier on the role of AMO and its involvement in the gas industry

The AMO and its role in Gas

Presentation to MAM CoP Management Board on 15th Oct 2007

Tom Chevalier, AMO Consultant

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Purpose

- Explain role of AMO
- Explain interest in gas
- Intention not to duplicate activities
- Promote understanding of AMO and where we can co-operate

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Background

- The Association of Meter Operators is the Trade Association for Meter Operators
 - It was formed in 1996 to represent the common interests of Meter Operators
 - A Meter Operator contracts either with the Customer or an Energy Supplier to maintain the gas and/or electricity meter
 - Membership includes all the active electricity Meter Operators and the Meter Asset Managers responsible for the majority of gas meters

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Members

- Members across range of metering services
- From established players to new entrants, big to small
- Three membership fee levels
- Members:
 - AccuRead
 - British Energy
 - BGlobal
 - Connect Utilities
 - EDF Energy
 - E.On UK
 - E.On Energy Services
 - IMServ
 - Lowri Beck Services
 - National Grid Metering
 - Npower
 - OnStream
 - RWE Npower
 - Siemens Energy Services
 - Scottish & Southern Energy
 - Scottish Power
 - United Utilities
 - Western Power Distribution

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AMO Governance

- AMO is a trade association
- Promotes interests of its members:
 - Forum for discussion
 - Nominate representatives to other groups
 - Exchange of information
 - Promote or sponsor meetings
 - Comply with Competition Act
- AMO can challenge issues on behalf of members without any one member company being exposed
- Spreads the effort/cost across all members

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AMO Governance (2)

- Membership open to anyone who is, or seeking to be, an Electricity MO or Gas OAMI (in practice a MAM)
- Membership fees, three levels based on numbers of meters
- Committee elected to manage the AMO activities
- Business Plan & Budget agreed at AGM
- Consultant appointed to achieve Business Plan

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AMO 2007/08 Targets

- General targets include:
 - Increase membership to all MOs & MAMs
 - Promote metering competition
 - Promote best practice
 - Increase awareness of AMO
 - Improve communication
- Smart targets include:
 - Support smart metering develop/implementation
 - Represent members through AMO Smart Metering Forum, BERR/DEFRA, Ofgem MISG & ERA SRSM
- Gas targets include:
 - Seek representation on relevant committees
 - Establish Gas Metering Forum

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AMO Gas Metering Forum

- Originally met in 2002/2004, then ceased
- Initial meeting in Oct 2007
- Agreed Terms of Reference
- Considerations:
 - Recognise other established groups already exist
 - Need to interact as appropriate
 - Avoid duplication
 - Promote members interests

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Issues

- A series of issues were debated for AMO focus
 - The AMO has limited resources
 - The Forum prioritised four issues for further work
- **Meter Pulse Utilisation (MPU)**
 - **PEMs (Post-Emergency Metering)**
 - **MID In-Service Testing**
 - **Asset Transfers - Unscheduled**
 - Asset Transfers - Scheduled
 - Change of Supplier
 - Prepayment Tariff Changes
 - Serial Number Conventions
 - Meter Returns
 - Gas Industry Safety Group
 - Competitive MAM on iGT Networks
 - Meter Boxes

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Purpose – achieved?

- Explain role of AMO
- Explain interest in gas
- Intention not to duplicate activities
- Promote understanding of AMO and where we can co-operate

Metering companies want effective competition to occur in the simplest way possible to keep costs and errors to the minimum

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Thanks for Listening/Debating!

New members welcome!

