

**MOCOPA**



**MANUAL FOR THE REGISTRATION  
AUTHORITY  
OF THE METER OPERATION CODE OF  
PRACTICE AGREEMENT  
MOCOPA®**

**Version 2.10**

**May-November 2011**

## AUTHORITY FOR ISSUE

This document is produced in support of Schedule 8 of the Meter Operation Code of Practice Agreement (MOCOPA<sup>®</sup>).

This document is issued and amended from time to time under the authority of the MOCOPA<sup>®</sup> Review Panel.

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**VERSION CONTROL**

VERSION NUMBER 2.10

CR No.	Description of Update	SECTION/ APPENDIX AFFECTED	EFFECTIVE DATE	AUTHORITY (Panel decision/ Consequential)
n/a	1st Version	All	01/08/06	
MCP002	V1.1	Section 12 Appendix 3	August 2007	Panel Decision
n/a	V1.24	Full Review	July 2010	Panel Decision
CP0036MR CP0037MR CP0038MR CP0039R CP0040MR CP0043R	V2.0	Sections 1, 5, 7, 8, 10, 13 and 14  Appendices 12, 15, 16, 17 and 18	May 2011	Panel Decision
<a href="#">CP0047MR</a>	<a href="#">V2.1</a>	<a href="#">General Housekeeping</a>	<a href="#">November 2011</a>	<a href="#">Consequential</a>

**GLOSSARY**

<b>Term</b>	<b>Acronym</b>	<b>Definition</b>
Annual Audit		as defined in the MOCOPA <sup>®</sup>
Authorised MOCOPA <sup>®</sup> Delegate		The person appointed by each Party to the MOCOPA <sup>®</sup> to manage all matters arising under or in connection with the MOCOPA <sup>®</sup>
Budget		as defined in the MOCOPA <sup>®</sup>
Change Request	CR	a formal submission for an update to this Manual; for the avoidance of doubt, an update to this Manual consequential upon an amendment to the MOCOPA <sup>®</sup> shall also be set out in a CR.
Distributor		as defined in the MOCOPA <sup>®</sup>
Fees		as defined in the MOCOPA <sup>®</sup>
Force Majeure		as defined in the MOCOPA <sup>®</sup>
Initial Audit		The audit carried out on a MOCOPA <sup>®</sup> Operator following the issue of Provisional Certificate [and prior to the issue of a Registration Certificate]
Meter Operation Code of Practice Agreement	MOCOPA <sup>®</sup>	as defined in the MOCOPA <sup>®</sup>
MOCOPA <sup>®</sup> Operator		as defined in the MOCOPA <sup>®</sup>
Provisional Certificate		as defined in the MOCOPA <sup>®</sup>
Registrar		As defined in paragraph 3 of this Manual
Registration Authority		as defined in the MOCOPA <sup>®</sup>
Registration Authority Manual		as defined in the MOCOPA <sup>®</sup>
Registration Certificate		as defined in the MOCOPA <sup>®</sup>
Registration Fee		The Fee shown in Appendix 8 and as defined in MOCOPA <sup>®</sup>
Requirements of MOCOPA <sup>®</sup>		as defined in the MOCOPA <sup>®</sup>
Review Panel	RP	as defined in the MOCOPA <sup>®</sup>
Review Panel Member		as defined under 'Member' in the MOCOPA <sup>®</sup>
Trade Mark	TM	as defined in the MOCOPA <sup>®</sup>
Updated Versions		A schedule of revisions to the Manual
Version History		A record of amendments which have been incorporated into the Manual
Version Number		A unique reference number for each version of the Manual

**1. PURPOSE AND STRUCTURE OF THIS MANUAL**

Under clause 7.2 of the Meter Operation Code of Practice Agreement (MOCOPA<sup>®</sup>) the Registration Authority (Registration Authority) is required to perform the functions given to it under the Agreement in accordance with its terms. This manual sets out the functions of the Registration Authority such that:

- i) where such functions are covered by specific sections of the MOCOPA<sup>®</sup>, references are provided; and
- ii) where the MOCOPA<sup>®</sup> does not provide detail, then sections of this manual provide such and may be construed as supporting the terms of the Agreement.

It should be noted that, according to MOCOPA<sup>®</sup> clause 12.2, the performance of the Registration Authority's rights and duties may be delegated under the conditions specified in that clause. For the avoidance of doubt, it should be noted that the requirements of this Manual should be met under any such assignment or delegation, and any failure to act in accordance with this Manual shall be the responsibility of the Registration Authority, and shall be considered accordingly by the Review Panel<sup>1</sup>.

The functions of the Registration Authority are set out in Schedule 8 of the MOCOPA<sup>®</sup>, as indicated in paragraphs 1.1 to 1.12 below.

Sections of this manual refer to the sub-number (i.e. Section 1 is 'Maintenance of the MOCOPA<sup>®</sup>')

- 1.1 Maintenance of the MOCOPA<sup>®</sup>
- 1.2 Accession to the MOCOPA<sup>®</sup>
- 1.3 Accession of MOCOPA<sup>®</sup> Operators
- 1.4 Secretariat to the Review Panel
- 1.5 General administration including website maintenance
- 1.6 Administering a Register of Sealing Plier Identification Marks
- 1.7 Management of the Auditing Process
- 1.8 Auditing MOCOPA<sup>®</sup> Parties at the Company level
- 1.9 Site Audits
- 1.10 Non-Compliance Process
- 1.11 Financial Services
- 1.12 Procurement of Legal Support
- 1.13 Management of the MOCOPA<sup>®</sup> Trade Mark

## 1A SCOPE OF THIS MANUAL

This Manual is intended to provide support to the primary requirements under the MOCOPA<sup>®</sup> for the functions of the Registration Authority and its interface with the Review Panel and MOCOPA<sup>®</sup> Parties.

In the event of any inconsistency between this Manual and the requirements of the MOCOPA<sup>®</sup>, the relevant provisions of the MOCOPA<sup>®</sup> shall take precedence.

## 1B UPDATES TO THIS MANUAL

Changes to the Manual may be derived from two sources:

Consequential upon changes to the MOCOPA<sup>®</sup>; or

Upon receipt of a duly completed and authorised Change Request.

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<sup>1</sup> It should be noted that circumstances of Force Majeure are not considered under the terms of this Manual, and any such case should be progressed under the relevant provisions of the MOCOPA.

In either case, the MOCOPA<sup>®</sup> Review Panel will approve any update to this Manual.

Notwithstanding the above, the Review Panel shall conduct a biennial review of this Manual to ensure its accuracy and effectiveness.

## 2. AUTHORITY

The authority of the Registration Authority is derived from its appointment by the Parties and its accession as a Party in its own right. The Registration Authority must fulfil its rights and duties as established under the MOCOPA<sup>®</sup> and its functions are outlined in Schedule 8 of the Agreement. The Registration Authority acts under the direction of the MOCOPA<sup>®</sup> Review Panel (MOCOPA<sup>®</sup> Clause 7.3 refers) and the Panel oversee and audit the performance of the Registration Authority (paragraph 1.1.7 of Schedule 7 of the MOCOPA<sup>®</sup>). For the avoidance of doubt, this objective shall include overseeing performance in relation to this Manual. The Registration Authority will provide appropriate reports on the performance of its functions to the Review Panel as required.

### 2.1 Removal or Resignation of the Registration Authority

Parties can remove the Registration Authority by a written resolution pursuant to Clause 7.6 of the MOCOPA<sup>®</sup>.

The Registration Authority can resign subject to the terms of Clause 7.5 subject to the requirements of Clause 7.8 in respect of a successor Registration Authority.

### 2.2 Successor Registration Authority

Clause 7.7 states that the appointment of a successor Registration Authority requires a majority resolution by Distributors and MOCOPA<sup>®</sup> Operator Parties, it is anticipated that the Review Panel would have been involved in the evaluation and recommendation of the successor Registration Authority prior to parties voting on such an appointment.

## 3. STRUCTURE OF THE REGISTRATION AUTHORITY

The Registration Authority will appoint an individual to be the point of contact for the Registration Authority and to oversee the proper performance of its functions and duties. The appointment of the individual will not confer voting rights under the constitution of the MOCOPA<sup>®</sup> Review Panel for that post-holder and the Registration Authority will nominate its representative to the Review Panel, who may or may not be that individual.

The Registration Authority will make available to the Review Panel a record of its structure, to include details of companies and/or individuals to whom specific functions that might otherwise be performed by the Registration Authority under the MOCOPA<sup>®</sup> or this Manual, may have been contracted out, through contract, agreement or arrangement, and will maintain this as an accurate record.

## 4. REFERENCES

Reference may be made in subsequent Sections of this Manual to the following:-

- 4.1 The Electricity Act 1989 (as amended)
- 4.2 SI 1998/1566 The Meters (Certification) Regulations 1998;
- 4.3 MOCOPA<sup>®</sup>, [8 September 1998] (as amended);
- 4.4 [Balancing and Settlement Code](#) Codes of Practice 1 through [10](#)

7 (England and Wales)

4.5 Code of Practice 1 through 7 (Scotland)

4.56 Health and Safety at Work Act 1974;

4.67 SI 1992/2665 The Electricity Safety, Quality and Continuity Regulations 2002~~SI 1988/1222 Health & Safety (Training for Employment) Regulations;~~

4.78 SI 1989/635 Electricity at Work Regulations;

4.89 SI 1992/205~~17~~ The Management of Health and Safety at Work Regulations;:-

4.9 SI 1998/1565 The Meters (Approval of Pattern and Construction and Method of Installation) Regulations 1998.

## **SECTION 1: MAINTENANCE OF THE MOCOPA<sup>®</sup>**

### **1.1 Registration Authority role in the Maintenance of the MOCOPA<sup>®</sup>**

Maintenance of the MOCOPA<sup>®</sup> is a function of the Registration Authority under Schedule 8 of the Agreement. For the purposes of this Manual, maintenance shall primarily support the requirements under MOCOPA<sup>®</sup> Clauses 2.2 and 4.1 to 4.4 inclusive, and shall comprise the following services:

- provision of copies of a current version of the MOCOPA<sup>®</sup> to authorised organisations or persons, which shall include publishing revised versions of the MOCOPA<sup>®</sup> to Parties, the Panel and the website at the agreed release dates;

- the preparation of amendments to the MOCOPA<sup>®</sup> as directed by the Review Panel;

- the issue of those amendments to the Panel and/or Parties as appropriate, for approval under the relevant voting mechanism (MOCOPA<sup>®</sup> Clauses 4.3 and 4.4 refer);

- recording the decision of the Panel or the outcome of voting by the Parties as appropriate to each amendment;

- incorporating the duly approved amendments into revised versions of the MOCOPA<sup>®</sup>; and

- the management of the procedures for change co-ordination as set out in this section of the Manual.

### **1.2 Change Co-ordination procedures for the amendment of the MOCOPA<sup>®</sup>**

In order to ensure the integrity of the MOCOPA<sup>®</sup> through amendment, it is necessary to manage the drafting of amendments, approval of those amendments and the update of the Agreement to incorporate approved amendments. The following principles shall constitute the objectives of the management of amendments to the MOCOPA<sup>®</sup>:

- the Review Panel will direct the Registration Authority as to the amendments proposed, notwithstanding that any Voting Member of the Panel may propose an amendment to be referred to the Parties;

- the proposed amendment will be progressed through the appropriate route in accordance with the requirements of MOCOPA<sup>®</sup> Clauses 4.3 or 4.4;

- each proposed amendment will incorporate the key requirements listed below as mandatory

- the objective of the amendment

- the proposed date that the amendment would come into effect; and

- the proposed drafting for incorporation into the Agreement

- and the Registration Authority shall ensure a template form is available for this purpose (Appendix 4);

- the appropriate approval for the proposed amendment ( i.e. Review Panel approval or Party vote);

- the logging of all proposals for amendment to the MOCOPA<sup>®</sup>; and

- incremental Version numbering for updated versions of the MOCOPA<sup>®</sup>, as set out in paragraph 1.6 of this section of this Manual

### 1.3 Application of the Change Co-ordination procedures for the MOCOPA<sup>®</sup>

For the avoidance of doubt, the scope of the change co-ordination procedures, as noted in section 1.2 above, shall be applicable to the Agreement as follows:

amendments to the main body of the MOCOPA<sup>®</sup>, Schedules 3 to 8 inclusive and any Appendices supporting those Schedules;

amendments to this Manual in accordance with paragraph 1.8 of this section of the Manual; and

Schedules 1 and 2 of the MOCOPA<sup>®</sup> shall be excluded as the information contained therein is derived from Party details as registered at Companies House.

### 1.4 Approval of proposed amendments to the MOCOPA<sup>®</sup>

Approval of a proposed amendment shall be the responsibility of the Review Panel or Parties, as appropriate. However, a function of the Registration Authority shall be to ensure that approval is in accordance with the majority requirements appropriate to the approval body, as set out in the MOCOPA<sup>®2</sup>.

To ensure the efficiency of the MOCOPA<sup>®</sup> change co-ordination process:

the Registration Authority shall maintain a list of specific contacts for Parties entitled to vote on a change issued under MOCOPA<sup>®</sup> Clause 4.4; and

voting Parties shall provide a dedicated contact to the Registration Authority for the purposes of change management, and shall advise any updates to those contact details as they arise.

### 1.5 Logging Amendments to the MOCOPA<sup>®</sup>

From the date of the incorporation of this Manual as Version 1.0, the Registration Authority shall keep a log of all proposed amendments to the MOCOPA<sup>®</sup> which shall include, but not be limited to:

a unique reference number for the proposal;

the title and description and effective date of the amendment;

its authority for approval, i.e. Review Panel or Party Vote;

the decision in respect of that proposal; and

if the proposed amendment is approved, the version of the MOCOPA<sup>®</sup> which incorporated the amendment.

### 1.6 Version Numbering for the MOCOPA<sup>®</sup>

The Panel shall direct the schedule for the issue of revised versions of the MOCOPA<sup>®</sup> which will incorporate any amendments agreed in accordance with Clause 4 of the MOCOPA<sup>®</sup> which are in effect at the time of issue ('Updated Versions').

In order to ensure the integrity of the MOCOPA<sup>®</sup>, each Updated Version will be assigned a unique reference (a 'Version Number'), such that Parties can be assured which Version Number of the MOCOPA<sup>®</sup> is prevalent. Version Numbers shall be assigned on the following basis;

N.0. where;

N denotes the incremental Version Number, which Version Number shall only be incremented in the event of primary or secondary legislation or in the event that issues of that version exceed 9, and

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<sup>2</sup> Clause 4.4 of the MOCOPA<sup>®</sup> for Party votes and Schedule 8 Clause 10 for a Panel resolution

0 denotes the issue under that Version, which issue is incremented upon each release incorporating changes which were neither minor nor consequential.

Where a number of minor or consequential changes have been agreed by the Panel and they determine that these should be published in a release, these will be issued under Version Number N.O.1, where 1 denotes the updated issue.

Each Version Number of the MOCOPA<sup>®</sup> will incorporate a record of the amendments which have been incorporated ('Version History')

#### 1.7 Maintaining accurate records of party names and details

Party names and details shown in Schedule 1 and 2 of the MOCOPA<sup>®</sup> shall be updated in accordance with changes to these official details. In addition, details for any additional parties who have acceded since the last Version Number of the MOCOPA<sup>®</sup> shall be incorporated into the relevant Schedule. Version history will not indicate changes to these details, and these Schedules shall only represent a view of the Parties at the time of the implementation of that Version Number.

#### 1.8 Maintenance of the Registration Authority Manual

Since this Manual supports the performance of the Registration Authority function, updates to this Manual shall be controlled through the use of specific CRs, which shall be set before the Panel for approval as if it was a consequential change to the Agreement<sup>3</sup> and shall be decided in accordance with the requirements of Clause 10 of Schedule 7 (Panel Resolutions) of the MOCOPA<sup>®</sup>.

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<sup>3</sup> See Clause 4.3 of the MOCOPA<sup>®</sup>

**SECTION 2: ACCESSION TO THE MOCOPA<sup>®</sup>**

- 2.1 Clauses 10.1 to 10.5 of the MOCOPA<sup>®</sup> set out the procedures for admitting new Parties by accession to the MOCOPA<sup>®</sup>, and Schedule 4 provides a standard form of Accession Agreement. In the case of the accession of a successor Registration Authority, the standard form of Accession Agreement requires modification to recognise it is an accession in that capacity (MOCOPA<sup>®</sup> Clause 10.5 refers).
- 2.2 Upon receipt of a signed Accession Agreement, the Registration Authority shall notify all Parties and the Panel that a New Party has been admitted. In addition, the Registration Authority shall ensure that:
  - 2.2.1 the details of the New Party's company name and address as registered at Companies House are updated in the relevant Schedule of the MOCOPA<sup>®</sup>;
  - 2.2.2 each New Party has nominated their Authorised MOCOPA<sup>®</sup> Delegate and provided their details;
  - 2.2.3 a New Party in the capacity of a MOCOPA<sup>®</sup> Operator shall be registered subject to the Registrar's requirements, as set out in Section 3; and
  - 2.2.4 any costs, e.g. the Initial Fee for MOCOPA<sup>®</sup> Operators, are notified to the New Party and invoiced accordingly.
- 2.3 For the avoidance of doubt, Accession confers the relevant voting rights however, each category of Party should note:
  - 2.3.1 in the case of a Distribution Business, all rights and duties shall apply and they should be compliant with these – e.g. notify Distributor Information per A.2.1 of Appendix 2 of Schedule 5 of the MOCOPA<sup>®</sup>; or
  - 2.3.2 in the case of a MOCOPA<sup>®</sup> Operator, it may not operate under the MOCOPA<sup>®</sup> until it has a Provisional Certificate

## SECTION 3: ACCESSION OF MOCOPA® OPERATORS

### 1 General

The registration of MOCOPA® Operators shall be carried out by the Registration Authority.

### 2 Flow Chart

A flow chart giving an overview of the process for registering MOCOPA® Operators is given in Appendix 1 and the key actions are listed in Appendix 2.

#### Request for Application Pack

- 2.1 On receipt of a request for an application pack, the Registration Authority should establish whether the applicant has signed the MOCOPA® Accession Agreement (Accession Agreement). If not, then an Accession Agreement form should be sent.
- 2.2 The application pack should include an application form (Appendix 5) and guidance notes on the Requirements to become a Registered MOCOPA® Operator (Appendix 6). The MOCOPA® is available from the Registration Authority and applicants should be directed to [www.mocopa.org.uk](http://www.mocopa.org.uk) if they wish to obtain a copy.

#### Receipt of Application

- 2.3 When an application form and required documentation has been received from an applicant, the procedure given in "Assessment of Applications to be Registered as a MOCOPA® Operator" (Appendix 7), should be completed. If the application is not acceptable, the Registration Authority should inform the applicant in writing or request any additional information that may be required before the application can be processed.

### 3 Accession Agreement

When the Accession Agreement has been signed by the applicant then the Registration Authority shall sign on behalf of all existing Parties. One copy of the Accession Agreement should be made and the original sent back to the applicant. All Parties to the MOCOPA® are to be informed of a new Party entering into this Agreement as per Clause 10.4 of the MOCOPA® and 2.2 of Section 2 of this Manual.

### 4 Provisional Certification

When the Accession Agreement is signed, the Registrar can issue a Provisional Certificate to the applicant. This Provisional Certificate will be valid for a period not exceeding 3 months, unless otherwise agreed by the Panel. The applicant's records should be updated to indicate that the MOCOPA® Operator has been issued with a Provisional Certificate, the expiry date of that Provisional Certificate and the target date for the Initial Audit.

The Registration Authority will ensure that the Panel and Parties are apprised of the issuance of a Provisional Certificate and the period under which the MOCOPA® Operator has been granted such certificate.

### 5 Initial Fee

On being issued with a Provisional Certificate, the MOCOPA® Operator shall be invoiced for the Registration Fee shown in Appendix 8.

### 6 Initial Audits

During the validity of the Provisional Certificate, the Registration Authority will assign an auditor to carry out an Initial Audit of the MOCOPA® Operator, which shall comprise the requirements of an Ongoing Audit, in order to establish compliance with MOCOPA®.

Any non-conformity found on the Initial Audit should be brought to MOCOPA® Operator's attention by the auditor, orally at the end of the audit and in writing within 10 working days after such audit. The MOCOPA® Operator should be given a reasonable time to take any

corrective action and to inform the auditor when such corrective action has been taken. The auditor will carry out a follow-up review to be satisfied that corrective action in respect of the non-conformity has been taken and, if so, will close the Initial Audit.

If corrective action has not been taken because the MOCOPA<sup>®</sup> Operator refuses or is unable to take the appropriate corrective action, then the Registration Authority shall revoke the MOCOPA<sup>®</sup> Operators Provisional Certificate. The Registration Authority will inform the Review Panel and all parties to MOCOPA<sup>®</sup> that the MOCOPA<sup>®</sup> Operator has not satisfactorily completed the MOCOPA<sup>®</sup> Operator registration process and that the MOCOPA<sup>®</sup> Operator cannot continue to be a party to the MOCOPA<sup>®</sup> in accordance with Clause 10.6.2 of the MOCOPA<sup>®</sup>.

## 7 Completion of Registration

When the Registrar receives a satisfactory report from the auditor then, and subject to the Registration Fee having been paid in full, a Registration Certificate will be issued.

Upon completing registration, the MOCOPA<sup>®</sup> Operator will be subject to the ongoing requirements for the Annual Audit under the MOCOPA<sup>®</sup>.

## 8 Ongoing Audits

Ongoing MOCOPA<sup>®</sup> Operator registration is subject to the results of the Audits carried out under the MOCOPA<sup>®</sup> by the Registration Authority as per Sections 8 and 9 of this Manual.

Any failure to resolve non-conformities identified at an Audit within either the period determined by the Registration Authority in the audit report to that MOCOPA<sup>®</sup> Operator or to the satisfaction of the auditor shall be resolved through the provisions for Breaches of the Agreement in Clause 5 of the MOCOPA<sup>®</sup>.

**SECTION 4: SECRETARIAT TO THE REVIEW PANEL**

4.1 Clause 6.1 of Schedule 7 to the MOCOPA<sup>®</sup> allows the Registration Authority to appoint a secretary to the Review Panel. The secretary's duties are broadly set out in clause 6.2 and shall include, but not be restricted to:

- 4.1.1 convening Review Panel meetings with due notice, pursuant to paragraph 7.2 or 8.1 of Schedule 7 of the MOCOPA<sup>®</sup>, as appropriate;
- 4.1.2 providing due notice of the business of the meeting convened as above in accordance with paragraph 8.2 of Schedule 7 of the MOCOPA<sup>®</sup>;
- 4.1.3 monitoring quoracy requirements pursuant to paragraph 9.2 of Schedule 7 of the MOCOPA<sup>®</sup> with Review Panel Members and alternates if relevant;
- 4.1.4 conducting resolutions of the Review Panel pursuant to paragraph 10 of Schedule 7 of the MOCOPA<sup>®</sup>; and
- 4.1.5 the issue and approval of the minutes of each Review Panel meeting in accordance with paragraph 11 of Schedule 7 of the MOCOPA<sup>®</sup>.

4.2 Each Party shall appoint an appropriate person to manage all matters arising under or in connection with the MOCOPA<sup>®</sup> and shall notify the secretary of that duly authorised person, or persons ('Authorised MOCOPA<sup>®</sup> Delegate(s)'). The secretary shall maintain a log of the MOCOPA<sup>®</sup> Authorised Delegates and Parties shall ensure that this is kept up to date, by advising the Registration Authority of any changes to such contact details as and when they occur. The Authorised MOCOPA<sup>®</sup> Delegate(s) shall be the primary point(s) of contact between the Review Panel and the Party, for dealing with matters arising out of and in connection with:

- 4.2.1 amendment of the MOCOPA<sup>®</sup> in accordance with Clause 4.4;
- 4.2.2 the co-ordination of the Annual Audit;
- 4.2.3 the resolution of matters arising out of and in connection with the Annual Audit;
- 4.2.4 the resolution of matters referred to Parties pursuant to Paragraph 10.1 of Schedule 7 of the MOCOPA<sup>®</sup>; and
- 4.2.5 the collection of any contribution to costs under the MOCOPA<sup>®</sup>.

## **SECTION 5: GENERAL ADMINISTRATION**

- 5.1 Where the Registration Authority has appointed a secretary to the Review Panel it shall establish co-ordinated processes, to ensure any administrative duties associated with the MOCOPA<sup>®</sup> or this Manual and the performance of those duties is duly executed by one or the other.
- 5.2 Administration requirements associated with particular functions are as detailed within the relevant sections of this Manual.
- 5.3 To facilitate the maintenance of the MOCOPA<sup>®</sup> website and party contact information, the Registration Authority will issue an annual request to all MOCOPA<sup>®</sup> parties requesting a review of their information. Acknowledgement of the request should be sought from all MOCOPA<sup>®</sup> parties.

## **SECTION 6: ADMINISTERING A REGISTER OF SEALING IDENTIFICATION MARKS**

- 6.1 Clause 1.4.3 of the MOCOPA<sup>®</sup> and Appendices 8 and 9 of Schedule 5 to the MOCOPA<sup>®</sup> refer to arrangements related to the sealing of metering equipment. As part of these, the Registration Authority is required to maintain a list of identification symbols for MOCOPA<sup>®</sup> Operators which must be marked on a specified seal. 'Maintain' here includes ensuring that no new symbol allocated duplicates an existing symbol.

## **SECTION 7: MANAGEMENT OF THE MOCOPA<sup>®</sup> OPERATOR AUDITING PROCESS AND GENERAL AUDIT CONDITIONS**

### 1 General Principles

- 1.1 The Audits carried out on MOCOPA<sup>®</sup> Operators are to provide assurance to the Distribution Businesses (as well as other industry parties) that MOCOPA<sup>®</sup> Operators and MOCOPA<sup>®</sup> Operatives are complying with the requirements of the MOCOPA<sup>®</sup>. The key objectives are to:
- Allow for the reporting of incidents;
  - Provide transparency of all findings; and
  - Allow for the timely removal of a Meter Operative's authorisation in the event of a breach of the compliance process.
- 1.2 Audits on MOCOPA<sup>®</sup> Operators are carried out before a MOCOPA<sup>®</sup> Operator is fully registered. Subsequent audits are carried out so as to ensure that MOCOPA<sup>®</sup> Operators are continuing to fully meet the requirements of MOCOPA<sup>®</sup>. The audits are to cover MOCOPA<sup>®</sup> Operator procedures and records and work carried out by the MOCOPA<sup>®</sup> Operator.
- 1.3 Additional audits may be initiated in accordance with the Non-Compliance process.

### 2 Auditor(s) Appointment and Independence

- 2.1 The Registration Authority will appoint an auditor(s). All contractual matters will be dealt with between the party concerned and the Registration Authority.
- 2.2 The appointed auditor(s) must have a thorough knowledge of electricity supply and metering points, the metering systems likely to be worked on and the hazards which may arise carrying out tests on metering systems. Auditor(s) must also have the ability to recognise where a metering system is not safe to be worked on.
- 2.3 For the avoidance of doubt, the Registration Authority shall be free to appoint a company, companies or individual(s) to perform any combination or all of the specified roles.
- 2.4 All persons performing audit related roles shall be free from bias, independent of the subject matter being audited and free from influence that could affect their objectivity. All persons involved with an audit must respect and support the independence of the auditor(s).

### 3 Pre-Audit Activities

- 3.1 The Review Panel will agree a programme for the audits. The actual dates of the audit will be agreed between MOCOPA<sup>®</sup> Operators and the auditor(s).
- 3.2 The auditor(s) will ensure appropriate audits of the MOCOPA<sup>®</sup> Operators procedures are planned and arranged. Any non-conformity against MOCOPA<sup>®</sup> requirements in the Pre-Audit Return (Appendix 3) which is identified by the auditor(s) will be entered on the non-conformity report at Appendix 10 and immediately brought to the attention of the MOCOPA<sup>®</sup> Operator.

### 4 Conducting the Audit

- 4.1 The audit will cover 2 distinct areas of operation, the Headquarters function and the Site works.
- 4.2 For the Headquarters Audit, the MOCOPA<sup>®</sup> Operator shall provide the information required by Appendix 12 in the first quarter of each calendar year.
- 4.3 For the Site Audit, the auditor(s) should complete the relevant check lists at Appendix 13 and 14 during the course of the audit using guidance notes as necessary. The

check lists are intended to be a tool to aid the auditors and not to restrict any part of the audit process.

## 5 Audit Reports

- 5.1 Auditor(s) are required to complete relevant audit form(s) at Appendices 9, 10, 12 13 and 14 during the course of the audit.
- 5.2 MOCOPA<sup>®</sup> Operators information from the Annual Audits form Appendices 10 to 14 will be released on request to a Distribution Business to support that Party in their duty of care. The information released is subject to MOCOPA<sup>®</sup> Operator and individual meter operative confidentiality. When making Annual Audit form submissions, a MOCOPA<sup>®</sup> Operator may request such information to be considered as confidential and this will only be disclosed to the individual MOCOPA<sup>®</sup> Operator and the Registration Authority. Individual meter operative details such as name will always be considered confidential and be removed from any Appendix documentation. It should be noted that Appendix 12 Part 2 (Sections 2-10) is confidential and will only be disclosed to the individual MOCOPA<sup>®</sup> Operator and the Registration Authority.
- 5.3 Site Audits will be carried out throughout the year to a programme agreed with the Review Panel. After Site Audits the auditor(s) will prepare a quarterly report for the Review Panel in a format agreed by the Review Panel. The report will include any recommendations for the Review Panel to consider and comment on if considered necessary.
- 5.4 Copies of the quarterly reports will be forwarded to MOCOPA<sup>®</sup> Parties and will be available to Suppliers, the BSC Co, the Energy Networks Association and other interested parties on request.
- 5.5 In March of each year a summary of findings will be agreed by the Review Panel and circulated to MOCOPA<sup>®</sup> Parties and be available to Suppliers, the BSC Co, the Energy Networks Association and other interested parties on request.
- 5.6 All documents relating to the audit will be held for [60] months.

## 6 Post-Audit Activities

- 6.1 Within 10 working days of completion of the Company or Site audit, the auditor(s) will formally submit in writing to the MOCOPA<sup>®</sup> Operator, the findings of the audit and will notify the MOCOPA<sup>®</sup> Operator that any corrective action programme is required within a further 15 working days.
- 6.2 The auditor(s) will subsequently verify that all non-compliances have been satisfactorily resolved before the audit is closed out. If any non-compliance has not been completed satisfactorily the auditor will advise the MOCOPA<sup>®</sup> Operator and the Review Panel under the non-compliance process.

## 8 Review

- 8.1 The auditor(s) will attend meetings of the Review Panel and report on the Audits.

## 9 Safe Working Practices

- 9.1 The auditor(s) as employers have a general duty of care to their employees and to other persons who may be affected by their works. Duties are given in the Health & Safety at Work Act 1974 and in regulations made under that Act.
- 9.2 As auditors are not authorised to work on metering systems or plant and apparatus of a Distribution Business, they will advise appropriately qualified MOCOPA<sup>®</sup> Operator staff of their requirements.

- 9.3 Employees have a duty of care in respect of work on or with electricity supplies and these responsibilities are given in SI 1989:635 The Electricity at Work Regulations.

## SECTION 8: AUDIT OF MOCOPA<sup>®</sup> OPERATORS AT THE COMPANY LEVEL

### 1 Purpose of Audit

#### 1.1 Audits carried out at the MOCOPA<sup>®</sup> Operators headquarters are to establish that the MOCOPA<sup>®</sup> Operator meets the Requirements of MOCOPA<sup>®</sup> in the following areas:

Organisation - clear chain of responsibility.

Insurance - adequately covered for public liability.

Policy - clear statement on safe working practices, quality of work and technical competency.

Training records - documentary evidence to verify adequate training of operatives both technically and in safe working practices.

Appointment of competent persons – documentary evidence to verify that the MOCOPA<sup>®</sup> Operator accords with the requirements of Schedule 5 and Appendix 7 of the MOCOPA<sup>®</sup>.

Work procedures - reasonable evidence to show that work procedures are issued to all operatives, that these procedures were controlled and used by operatives.

Records of work carried out - to establish that adequate records of meter installation and commissioning were being kept and that sufficient information was being exchanged with the Distributor Business, ensuring metering systems are correctly installed.

Test equipment - to ensure that suitable test equipment is being used and that instruments are periodically re-calibrated.

Sealing - documentation to show records and control of sealing dies specified for use in MOCOPA<sup>®</sup>.

Internal Audit Records – documentary evidence to verify adequate internal audit procedures are in place and conducted to a satisfactory standard.

#### 1.2 For the company audit, form Appendix 12 will be completed by the MOCOPA<sup>®</sup> Operator. See all Guidance Notes

### 2 Audit Procedure

#### 2.1 The Initial Audit will include an audit at the MOCOPA<sup>®</sup> Operator's headquarters. Thereafter, unless required by the Review Panel, the auditor will undertake a review of the documentation submitted by the MOCOPA<sup>®</sup> Operator in accordance with para 4.2 of Section 7 of this manual...

#### 2.2 The company audit will be arranged and conducted as detailed in Section 7 of this manual and reports submitted using the forms in Appendices 9, 10, 11 and 12.

## SECTION 9: SITE AUDITS

### 1 Purpose of Audit

#### 1.1 Site audit of the installation of metering systems is to establish whether or not:

Safe working practices are being used. See Guidance Notes "A".

Technically competent staff are carrying out or supervising the work. See Guidance Notes "B".

The quality of the work carried out and material used are satisfactory. See Guidance Notes "C".

Commissioning and testing of metering systems is carried out safely using appropriate test equipment. See Guidance Notes "D"& "E".

All equipment is sealed in accordance with the MOCOPA<sup>®</sup> requirements. See Guidance Notes "F".

Safe working practices are being used.

Technically competent operatives are carrying out the testing.

#### 1.2 During the Site audit, form Appendix 13 or 14 will be completed as appropriate.

### 2 Audit Procedure

#### 2.1 The first site audit for a MOCOPA<sup>®</sup> Operator will be an Initial Audit, conducted within 3 months of Provisional registration. Thereafter all MOCOPA<sup>®</sup> Operators are subject to annual Site Audit which will be arranged and conducted as detailed in Section 7 of this manual and reports submitted using the forms in Appendices 9 and 10 and either Appendix 13 or Appendix 14 as appropriate.

## SECTION 10: THE NON-COMPLIANCE PROCESS

- 1 Introduction
  - 1.1 This section outlines the Procedure to be followed where a MOCOPA<sup>®</sup> Party believes another Party has not complied with the requirements of the MOCOPA<sup>®</sup> or instances where an auditor identifies a non-compliant MOCOPA<sup>®</sup> Party, whether that be by way of an initial audit or re-audit.
  - 1.2 This section is to be used in conjunction with the process diagram set out in Appendix 15 and 16.
- 2 Recording of Non-Compliance.
  - 2.1 A suspected non-compliance against a MOCOPA<sup>®</sup> Party must be sent in writing to the Registration Authority using the format set out in Appendix 9. The reporting party should be advised that their name and affiliation must be clearly shown and the following details included:
    - The Party against whom the non-compliance is alleged;
    - The issue or incident, which should include site and personnel details if appropriate; and
    - The nature of the non-compliance should be fully described.
  - 2.2 On receipt of any suspected non-compliance against a MOCOPA<sup>®</sup> Party, the Registration Authority should establish that the claimant's name and affiliation are clearly shown; that the MOCOPA<sup>®</sup> Party against whom the complaint is directed has been identified and, if relevant, details of the site(s), personnel and circumstances in which the work was undertaken have been provided. The submission should also contain full details of the nature of the non-compliance and whether it is concerned with the workmanship, materials, technical, competency, safety issues or provision of information.
- 3 Emergency Non-Compliance Process
  - 3.1 Where a reporting party believes that a Meter Operative is operating in a way that is seriously and directly endangering the lives of the general public and is deemed to be operating in a hazardous manner, the reporting party will indicate the gravity of this in their non-compliance report (Appendix 9).
  - 3.2 The issue will then be referred to the Review Panel, who will urgently convene to review the issue within 2 working days of receiving the complaint. At this urgent meeting the Review Panel will decide whether the incident should be dealt with as a matter of urgency or not. The Review Panel will then propose initial actions based on the information provided; such actions may include the removal of MOCOPA<sup>®</sup> certification from the party at fault.
  - 3.3 The Review Panel will then advise the MOCOPA<sup>®</sup> Party, via the Registration Authority, of immediate actions which the MOCOPA<sup>®</sup> Party is required to undertake. Such actions must be undertaken within 3 working days of a direction being given by the Review Panel.
    - 3.3.1 If no action has been taken within the timescale, the registration authority will advise the Review Panel. The Registration Authority will then follow up with the MOCOPA<sup>®</sup> Party based on the Review Panel's decision, at this stage the MOCOPA<sup>®</sup> Party will also send through all outstanding information with regards to the serious breach.
  - 3.4 In any instances where the non-compliance is not serious or immediately life threatening the process as outlined below (and in Appendix 16) will be followed.

#### 4 Registration Authority Investigation.

4.1 Should the information provided by the reporting party be incomplete, or absent of the information outlined above, the Registration Authority will return the form to the reporting party that raised the non-compliance within 5 working days of receiving it. The Registration Authority will specify which areas of information are missing and advise the reporting party of a relevant timescale in which to return the completed information.

4.2 On receipt of a suspected non-compliance that meets the requirements specified in Section 2.1, the Registration Authority will carry out a preliminary investigation within 5 working days of receiving the completed documentation. The preliminary investigation will serve to ascertain whether, on the basis of the information provided by the reporting party, the MOCOPA<sup>®</sup> Party in question is a material breach of the MOCOPA<sup>®</sup>, in doing so the Registration Authority will complete Section 2 of Appendix 9.

4.2.1 In the event that the non-compliance is not regarded as a material breach at this point the Registration Authority will inform the reporting party and the Review Panel of the outcome reached. No further action will be taken, unless the reporting party wishes to appeal against the Registration Authority's decision in which case the Appeals process as covered in Section 8 should be followed.

4.2.2 In the event that the non-compliance is seen as a material breach the Registration Authority will advise the Review Panel and the MOCOPA<sup>®</sup> Party in question that the non-compliance has been lodged with the Registration Authority.

#### 5 Review Panel Examination

5.1 Within 20 working days of being notified of the non-compliance the Review Panel will consider the details of the non-compliance and decide, on the basis of the information provided, whether or not the non-compliance will be upheld.

5.1.1 In the event that the non-compliance is not regarded as a material breach at this point the Registration Authority will inform the reporting party and the Review Panel of the outcome reached. No further action will be taken, unless the reporting party wishes to appeal against the Registration Authority's decision in which case the Appeals process as covered in Section 8 should be followed.

5.1.2 In the event that the Review Panel decides that the non-compliance should be upheld the Review Panel will advise the Registration Authority of their decision. In agreeing to uphold the non-compliance the Review Panel will review and agree any further proposed actions and will consider any potential costs.

5.1.3 Once the Registration Authority has received instruction from the Review Panel, with regards to any further actions they will advise both the reporting party and the MOCOPA<sup>®</sup> Party in question of the decision taken by the Review Panel. The Registration Authority will provide specific details to the MOCOPA<sup>®</sup> Party in question and will outline the actions needed to bring the MOCOPA<sup>®</sup> Party in question back under compliance with the MOCOPA.

#### 6 Auditor Review

- 6.1 In line with instructions given to the Registration Authority by the Review Panel, the Registration Authority will assign an Auditor and inform the designated Auditor of details related to the initial breach of the MOCOPA<sup>®</sup>, the decision taken and further proposed actions as recommended by the Review Panel. Such correspondence with the Auditor will also, where relevant, set out what actions the Review Panel has required the Auditor to undertake.
- 6.1.1 Within 20 working days of receipt of the above information from the Registration Authority, the Auditor will liaise with the MOCOPA<sup>®</sup> Party in question, in an attempt to arrange a follow up audit specific to the complaint raised. The Auditor will complete Section 3 of Appendix 9 and send this to the Registration Authority; where relevant the Auditor will provide the Registration Authority with a recommendation.
- 6.2 Within 5 days of receiving the Auditor's findings and recommendations, as indicated above, or as referred to in the MOCOPA<sup>®</sup> Party's annual audit report, the Registration Authority will review and provide a summary of the Auditor's report to the Review Panel.
- 7 Remedial Action Requirement
- 7.1 The Review Panel will, within 20 days of receiving the summary Auditor's report, make a recommendation to the Review Panel in order to establish the need for any further remedial action where necessary. The Review Panel will then advise the Registration Authority of any further action required to be undertaken by the MOCOPA<sup>®</sup> Party in question.
- 7.1.1 Where the MOCOPA<sup>®</sup> Party in question is not required to undertake any further remedial action the Registration Authority will communicate this to both the reporting party and the MOCOPA<sup>®</sup> Party in question, at which point no further action will be taken
- 7.1.2 Where the MOCOPA<sup>®</sup> Party in question is required to undertake further remedial actions, the Registration Authority will provide a detailed summary of all areas needing attention in order for the MOCOPA<sup>®</sup> Party in question to rectify the non-compliance issue(s). The MOCOPA<sup>®</sup> Party in question will also be informed that they must reply to the Registration Authority's correspondence within 15 working days, providing details of what actions will be undertaken by the MOCOPA<sup>®</sup> Party in question and any relevant timescales.
- 7.1.2.1 At this stage The Registration Authority will contact reporting party and the Auditor in order to advise that the MOCOPA<sup>®</sup> Party in question has been instructed to rectify the area(s) of non-compliance in line with the MOCOPA<sup>®</sup>.
- 7.2 Once the MOCOPA<sup>®</sup> Party in question has responded to the Registration Authority advising what steps will be undertaken and any associated or relevant timescales; the Registration Authority will, allowing for sufficient time for the remedial actions to be undertaken, arrange for an Auditor to re-evaluate the MOCOPA<sup>®</sup> Party in question paying specific attention to the previous area(s) of non-compliance.
- 7.2.1 In the event that no response is received from the MOCOPA<sup>®</sup> Party in question within the permitted 15 working days the Registration Authority will re-issue the initial correspondence to the MOCOPA<sup>®</sup> Party in question instructing them to rectify any outstanding area(s) of non-compliance. The Registration Authority will also make detailed reference to the fact that failure to remedy the non-compliance will be referred to the Review Panel for determination.

- 7.2.2 If after a further 15 working days a response has still not been received, the Registration Authority will refer this matter to the Review Panel for further consideration. The Review Panel will advise the Registration Authority of any further actions to take; which may include the revocation of the MOCOPA<sup>®</sup> Party's certification.
- 7.2.3 The Registration Authority will be required to complete Section 4 of Appendix 9 at this stage.
- 7.3 Within 20 working days of receiving from the Registration Authority instruction to re-evaluate; the Auditor will arrange for the reassessment of the MOCOPA<sup>®</sup> Party in question and subsequently complete and send an Auditor's report to the Registration Authority; providing sufficient guidance on any apparent recommendations.
- 7.3.1 The Auditor will be required to complete Section 5 of Appendix 9 at this stage.
- 7.4 On the basis of the Auditor's report and recommendation(s) and within 5 working days of receiving such, the Registration Authority will make a decision with regards to whether the non-compliance has now been satisfactorily resolved.
- 7.4.1 If the Registration Authority deems the non-compliance issue(s) to still be outstanding the Registration Authority will pass their assessment and all relevant documentation (including the initial complaint and any subsequent Auditor's reports) to the Review Panel for further consideration.
- 7.4.1.1 Taking into consideration the severity of the incident of non-compliance and all relevant documentation, the Review Panel will decide which further actions, if any, need to be undertaken.
- 7.4.2 If the Registration Authority deems the issue(s) of non-compliance to be resolved the Registration Authority will communicate its decision to the reporting party and the relevant MOCOPA<sup>®</sup> Party as well as the Review Panel and the Auditor. No further action will be taken, unless the reporting party wishes to appeal against the Registration Authority's decision in which case the Appeals process as covered in Section 8 should be followed.
- 7.4.3 At this point the Registration Authority will recover any costs that have been incurred in resolving the non-compliance and invoice the MOCOPA<sup>®</sup> Party in question, in accordance with Section 9.
- 7.5 Records of non-compliances will not normally be held for more than 60 months after the last recorded action.<sup>8</sup> Appeal Procedures for Complaints
- 8.1 All Parties agree to abide by any decision of the Registration Authority save that any directly affected Party has the right to escalate the matter to the Review Panel, in which case both the non-compliance and the auditor's report (if any) shall be available for inspection by the Review Panel. The decisions taken by the Registration Authority will be submitted to the Review Panel, together with any other relevant information deemed to be necessary.
- 8.2 The Review Panel, in accordance with its constitution shall discuss and decide whether the decision taken by the Registration Authority was reasonable or whether further action needs to be taken and whether there should be a referral to arbitration in accordance with clause 16 of the MOCOPA<sup>®</sup>.
- 8.3 Where further action needs to be taken the Review Panel should also decide whether any changes are necessary to the MOCOPA<sup>®</sup>. The Registration Authority will consider if any changes are required to their procedures.
- 8.4 All Parties agree to abide by the decision of the Review Panel.

9 Cost Recovery

9.1 Where receipt of a non-compliance will cause additional costs for the Registration Authority and/or the Review Panel, for example commissioning an audit, these costs will be presented to the Review Panel for approval, having in mind its contingency allowance within the budget and its right to request reimbursement of excess costs under clause 2.5 of the MOCOPA<sup>®</sup>.

10 Re-Audit Process

10.1 Where an audit has taken place and the Auditor has found there are any outstanding areas of non-compliance, the Auditor will document these areas of non-compliance and provide such information to the Registration Authority, at which point the process set out from Section 7.3 will be followed.

## **SECTION 11: FINANCIAL SERVICES**

- 11.1 Each year the Registration Authority shall provide a draft budget for the approval of the Review Panel, pursuant to Clause 7.11 of the MOCOPA<sup>®</sup>. The budget will allow for any surplus or deficit in funds from the previous financial year.
- 11.2 Clause 2.3 of the MOCOPA<sup>®</sup> obligates Parties to settle the Invoice in respect of the Fees agreed in the Budget. The Registration Authority shall provide the invoicing and collection services associated with this obligation, and such invoices shall be raised to each party in accordance with the contribution formula set out in Clause 2.4 of the MOCOPA<sup>®</sup>.
- 11.3 The Registration Authority shall provide the Review Panel with a financial report at each duly convened meeting.
- 11.4 The Registration Authority shall invoice the party concerned in relation to any Registration Fee levied in accordance with Clause 2.6 of the MOCOPA<sup>®</sup> or any excessive costs approved by the Review Panel pursuant to Clause 2.5 of the MOCOPA<sup>®</sup>.
- 11.5 The Registration Authority shall manage any dispute raised by a Party in respect of sums set out in a statement issued pursuant to Clause 2.7. Any resolution of such a dispute shall be resolved in accordance with Clauses 2.9 and 2.10.

## SECTION 12: LEGAL SUPPORT

12.1 The procurement of legal support shall be at the direction of the Review Panel in accordance with the following principles;

legal advice on matters related to the MOCOPA<sup>®</sup>, e.g. legal review of amendments to the MOCOPA<sup>®</sup>, matters of breach under the MOCOPA<sup>®</sup>.

participation, which may be by teleconference, of a legal adviser at the Review Panel meetings on an 'as required' basis.

drafting for amendments to the MOCOPA<sup>®</sup>, or this Manual, should be provided for legal assessment, rather than commissioning legal drafting at the outset.

quotes for legal work/review should be obtained in advance of any such work or review being commissioned and the legal fees agreed by the Review Panel.

invoices in respect of any legal services authorised by the Review Panel should be submitted in a timely fashion upon completion of such legal services and invoices for legal services provided throughout a financial year, as opposed to commissioned at the end of a financial year, shall be invoiced within four weeks of the end of that financial year.

## **SECTION 13: MANAGEMENT OF THE DISTRIBUTION BUSINESS AUDITING PROCESS AND GENERAL AUDIT CONDITIONS**

### 1 General Principles

- 1.1 The Audits carried out on Distribution Businesses are to provide assurance that the Distribution Businesses are complying with their requirements within the MOCOPA<sup>®</sup>. The key objectives are to:
- Allow for the reporting of incidents; and
  - Provide transparency of all findings.
  - Allow for the review of a Distribution Business authorisation in the event of a breach of the compliance process.
- 1.2 The audits are to cover Distribution Business procedures and records and the application of the eise procedures by the Distribution Business.
- 1.3 Additional audits may be initiated in accordance with the Non-Compliance process.

### 2 Auditor(s) Appointment and Independence

- 2.1 The Registration Authority will appoint an auditor(s). All contractual matters will be dealt with between the party concerned and the Registration Authority.
- 2.2 The appointed auditor(s) must have a thorough knowledge of Distribution Businesses obligations in respect of the MOCOPA and the risks that might arise.
- 2.3 For the avoidance of doubt, the Registration Authority shall be free to appoint a company, companies or individual(s) to perform any combination or all of the specified roles.
- 2.4 All persons performing audit related roles shall be free from bias, independent of the subject matter being audited and free from influence that could affect their objectivity. All persons involved with an audit must respect and support the independence of the auditor(s).

### 3 Pre-Audit Activities

- 3.1 The Review Panel will agree a programme for the audits. The actual dates of the audit will be agreed between Distribution Businesses and the Registration Authority.
- 3.2 The auditor(s) will ensure appropriate audits of the Distribution Business procedures are planned and arranged. Any non-conformity against MOCOPA<sup>®</sup> requirements in the Pre-Audit Return (Appendix 17) which is identified by the auditor(s) will be entered on the non-conformity report at Appendix 18 and immediately brought to the attention of the Distribution Business.

### 4 Conducting the Audit

- 4.1 The audit will cover the Headquarters function.
- 4.2 For the Headquarters Audit, the Distribution Business shall provide the information required by Appendix 17 in the first quarter of each calendar year.

### 5 Audit Reports

- 5.1 Auditor(s) are required to complete relevant audit form(s) at Appendix 18 during the course of the audit.
- 5.2 Distribution Business information from the Audits form Appendix 18 will be released on request to a MOCOPA<sup>®</sup> Operator to support that Party in their duty of care with the approval of the Review Panel.

5.3 In March of each year a summary of findings will be agreed by the Review Panel and circulated to MOCOPA<sup>®</sup> Parties and be available to Suppliers, the BSC Co, the Energy Networks Association, the Association of Meter Operators and other interested parties on request.

5.4 All documents relating to the audit will be held for [60] months.

## 6 Post-Audit Activities

6.1 Within 10 working days of completion of the Company Headquarters audit, the auditor(s) will formally submit in writing to the Distribution Business, the findings of the audit and will notify the Distribution Business that any corrective action programme is required within a further 15 working days.

6.2 The auditor(s) will subsequently verify that all non-compliances have been satisfactorily resolved before the audit is closed out. If any non-compliance has not been completed satisfactorily the auditor will advise the Distribution Business and the Review Panel under the non-compliance process.

## 8 Review

8.1 The auditor(s) will attend meetings of the Review Panel and report on the Distribution Business Audits.

## 9 Safe Working Practices

9.1 The auditor(s) as employers have a general duty of care to their employees and to other persons who may be affected by their works. Duties are given in the Health & Safety at Work Act 1974 and in regulations made under that Act.

9.2 As auditors are not authorised to work on metering systems or plant and apparatus of a Distribution Business, they will advise appropriately qualified Distribution Business staff of their requirements.

9.3 Employees have a duty of care in respect of work on or with electricity supplies and these responsibilities are given in SI 1989:635 The Electricity at Work Regulations.

## SECTION 14: AUDIT OF DISTRIBUTION BUSINESSES HEADQUARTERS ACTIVITIES

### 1 Purpose of Audit

- 1.1 Audits carried out at the Distribution Businesses headquarters are to establish that the Distribution Business meets the Requirements of MOCOPA<sup>®</sup> in the following areas:

Organisation - clear chain of responsibility.

General Operational Liaisons/Communications.

Maintained Status of Information – Evidence of how MOCOPA<sup>®</sup> Operators are being provided site/network specific information.

Information required by a MOCOPA<sup>®</sup> Operator – Evidence of general operational procedures related to MOCOPA<sup>®</sup> Operator activities.

Technical Issues – CT/VT, sealing, test and connection facilities, and hazard/defect reporting.

Authorisation Requirements – Procedures for providing authorisation testing and process for allowing authorisation if applicable.

- 1.2 For the headquarters audit, form Appendix 17 will be completed by the Distribution Business.

### 2 Audit Procedure

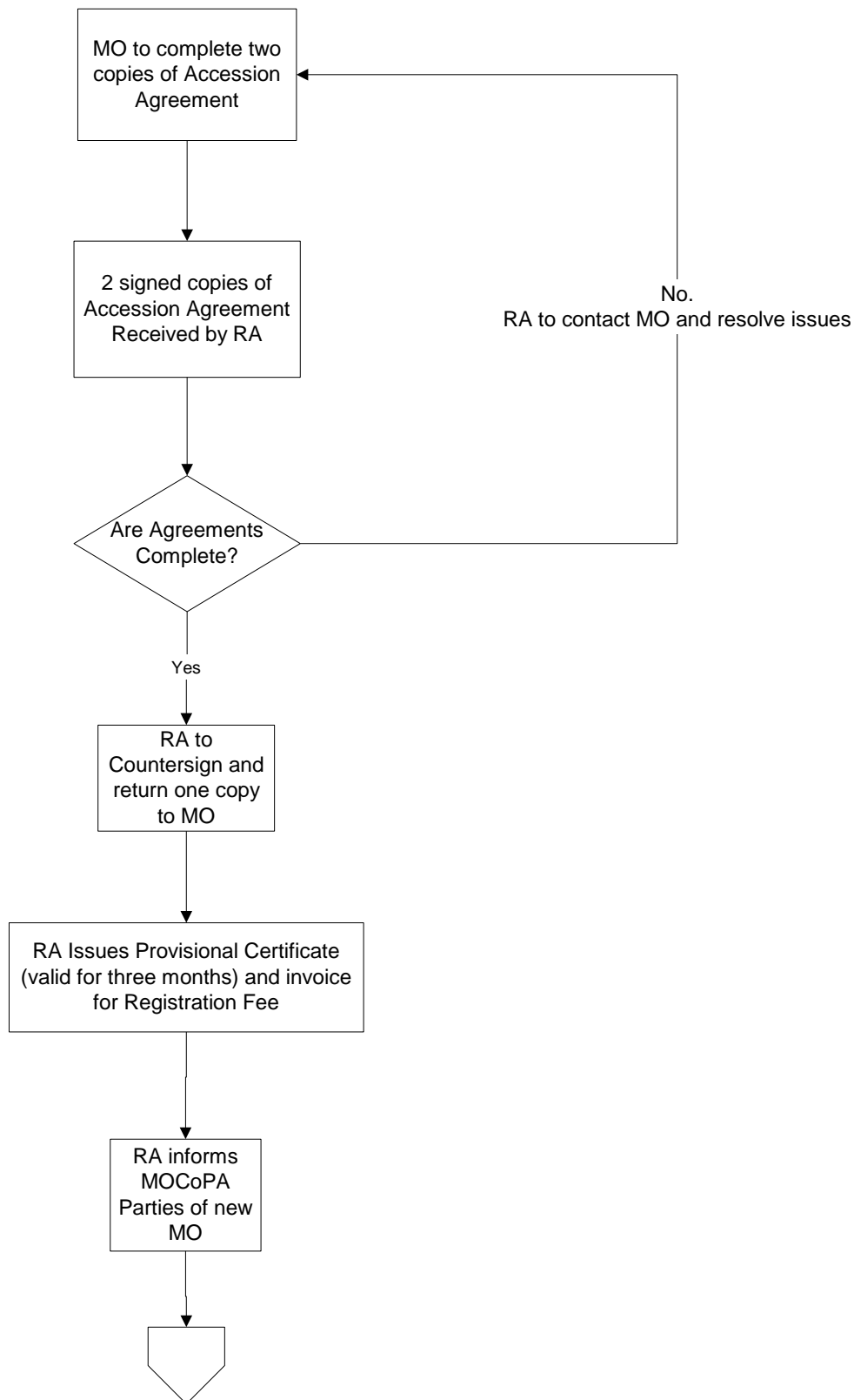
- 2.1 The Initial Audit will include the auditor undertaking a review of the documentation submitted by the Distribution Business in accordance with para 4.2 of Section 13 of this manual.

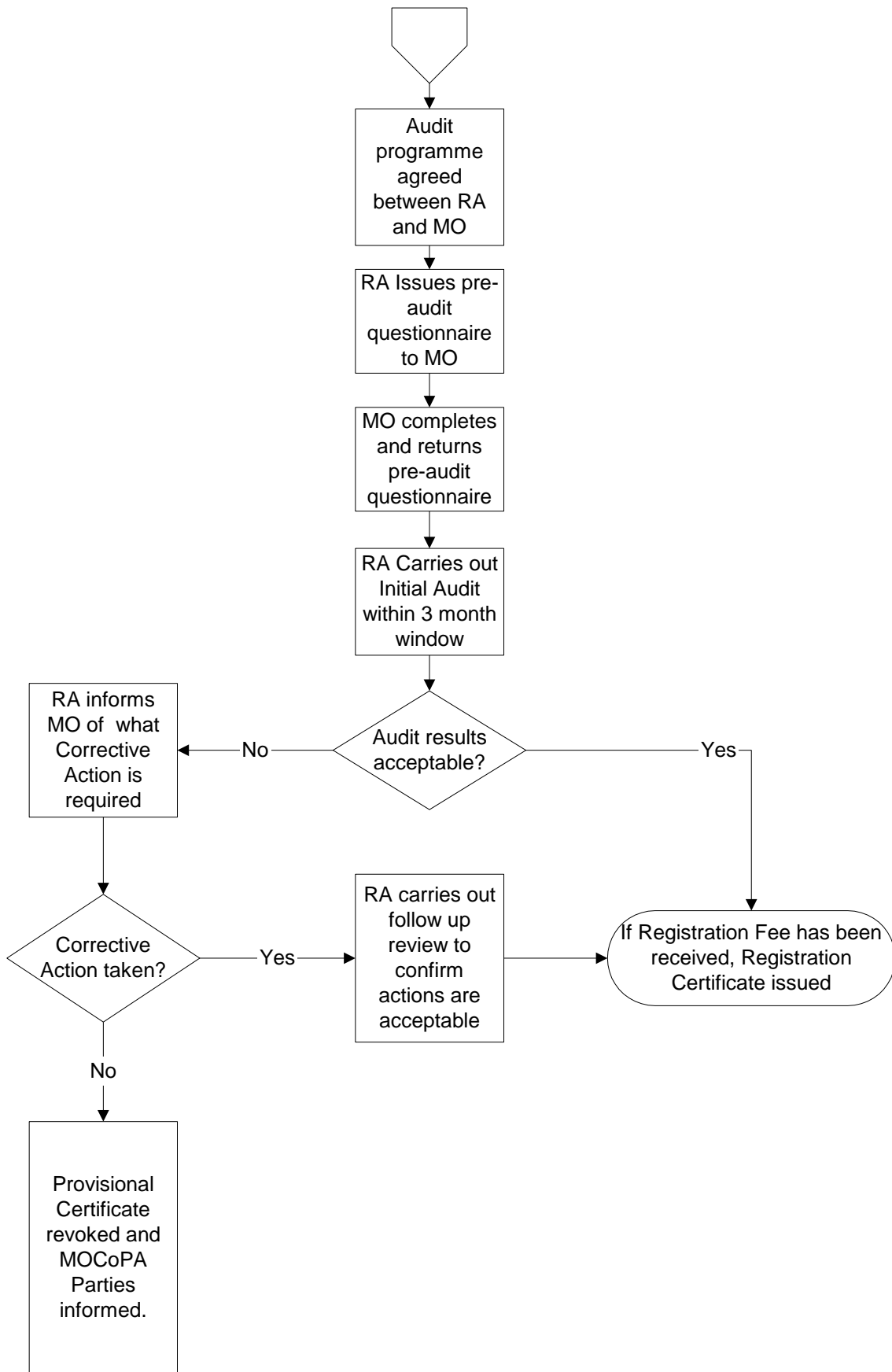
Thereafter, the audit will comprise annual reviews in accordance with para 4.2 of Section 13 of this Manual, unless requested by the Review Panel to undertake an onsite audit at the Distribution Business headquarters.

- 2.2 The headquarters audit will be arranged and conducted as detailed in Section 13 of this manual and reports submitted using the form in Appendix 18.

# Appendices

### APPENDIX 1 – ACCESSION OF MOCOPA® OPERATOR





## **APPENDIX 2 – MOCOPA<sup>®</sup> OPERATOR REQUEST TO ACCEDE TO THE MOCOPA<sup>®</sup> KEY ACTIONS**

### **1 REQUEST FOR APPLICATION FORM**

#### **1.1 Send the following:**

- 1.1.1 Application Form (Appendix 5)
- 1.1.2 Guidance notes on application (Appendix 6)
- 1.1.3 Details of the MOCOPA<sup>®</sup> website from where copies of the Agreement and Registration Authority Manual can be downloaded;
- 1.1.4 Accession Agreement (Schedule 4 to MOCOPA<sup>®</sup>).

### **2 ON RECEIPT OF AN APPLICATION FORM**

#### **2.1 Ensure that the following documents have been returned to the Registration Authority:**

- 2.1.1 Completed Application Form;
- 2.1.2 Two copies of the signed Accession Agreement.

#### **2.2 Accession Agreement to be signed by the Registration Authority and the following action to be taken:**

- 2.2.1 Send an original Accession Agreement back to applicant;
- 2.2.2 Place one copy of Accession Agreement in MOCOPA<sup>®</sup> Operator file;
- 2.2.3 Inform all parties to the Agreement of new Party.

### **3 EVALUATION OF APPLICATION**

#### **3.1 The Registration Authority shall assess the application using form Appendix 7. If the application is satisfactory, the following action is to be taken:**

- 3.1.1 Provisional Certificate raised and signed.
- 3.1.2 Certificate sent to newly registered MOCOPA<sup>®</sup> Operator;
- 3.1.3 MOCOPA<sup>®</sup> Operator should be invoiced for registration fee;
- 3.1.4 Website updated.

### **4 AUDITS**

- 4.1 On receipt of information on work to be undertaken by MOCOPA<sup>®</sup> Operators, the Registration Authority will appoint an Auditor. Auditors will use forms Appendix 10, 12, 13 and 14, the MOCOPA<sup>®</sup> and Health & Safety legislation as a basis for this Initial Audits on MOCOPA<sup>®</sup> Operators.

## 5 FEES

- 5.1 Applicants are to be invoiced for the fees given in Appendix 8.

**APPENDIX 3 – PRE AUDIT QUESTIONNAIRE**

MOCOPA® Pre-Audit Return

Organisation Name:	
Main Contact Name:	
Full Contact Address:	
Organisation Type:	Distribution Business MOCOPA® Operator
Company Registered Number:	
Contact Details:	
Tel:	
Fax:	
Email:	

Date received by Registration Authority: \_\_\_\_\_

## Business Details and Coverage

	Detail	Your Response
1.1	On which Distribution Business's networks does your organisation operate?	
1.2	Which types of metering systems is your organisation responsible for installing and maintaining (e.g. Half-Hourly, Non Half Hourly)?	
1.3	Are you aware of your organisational and technical responsibilities under the Meter Operator Code of Practice Agreement (MOCOPA®)?	
1.4	Are you in possession of a full MOCOPA® Certificate of Registration including current company details?	
1.5	Are you aware of any issues carried forward from the previous audit which may require clarification and/or closure during the forthcoming audit? (If so, please give brief details)	
1.6	Ideally, all communication should be to one nominated point of contact but, if for some reason this is impractical, or if other contacts are necessary, please give details as appropriate.	

	Detail	Your Response
1.7	Is the address given on the details page the address at which you expect the MOCOPA® Headquarters audit to take place? If 'no' then please give the correct address.	
1.8	Is the address given on the details page the address from which the site-based technical audits will be co-ordinated? If 'no' then please give the correct address.	
1.9	Are you aware of how to contact the MOCOPA® Registration Authority in the event of queries, clarifications, company detail changes, or other issues?	

Approved by :

-----

Print Name      Signature      Position      Date

## **APPENDIX 4 – CHANGE REQUEST FOR AGREEMENT BY PARTIES**

The MOCOPA<sup>®</sup> Review Panel has considered and endorsed changes to the MOCOPA<sup>®</sup>, which require to be adopted through majority agreement of 65% or more of the holders of each of the Distributors' and MOCOPA<sup>®</sup> Operators' votes pursuant to Clause 4.4 in order for these changes to be incorporated into the MOCOPA<sup>®</sup>.

### **TITLE**

Objectives

Proposal

Additional Information

DRAFTING FOR THIS CHANGE REQUEST IS APPENDED TO THIS COVER NOTE

Response Date

Parties are requested to return their vote by

Parties may submit their vote in the first instance under cover of an email to [mocopa@gemserv.com](mailto:mocopa@gemserv.com)

Signed voting forms should be posted to the MOCOPA<sup>®</sup> Secretariat, at the following address;

Gemserv Ltd  
10 Fenchurch Street  
London  
EC3M 3BE

PROPOSED DRAFTING FOR AMENDMENT TO THE MOCOPA<sup>®</sup>

[Legal drafting to be included]

**APPENDIX 5 - APPLICATION TO BE REGISTERED AS A MOCOPA® OPERATOR**

1 COMPANY NAME: \_\_\_\_\_

2 ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3 TEL No: \_\_\_\_\_ FAX NUMBER: \_\_\_\_\_

4 NAME AND POSITION IN COMPANY \_\_\_\_\_  
OF PERSON MAKING THIS APPLICATION \_\_\_\_\_

5 NAME, POSITION IN COMPANY \_\_\_\_\_  
AND OF PERSON WHO CAN BE \_\_\_\_\_  
CONTACTED (if different from above): Tel No \_\_\_\_\_

6 STATUS OF COMPANY \_\_\_\_\_  
(plc, Ltd, subsidiary of, etc;):

7 NUMBER OF EMPLOYEES \_\_\_\_\_

8 COMPANY ORGANISATION CHART (use separate sheet if necessary):

9 NAME AND ADDRESS OF AGENTS OR SUB CONTRACTORS TO BE EMPLOYED BY YOUR COMPANY ON METER INSTALLATION, COMMISSIONING, CALIBRATION AND TESTING:

Company Name & Address:

---

---

---

---

---

Tel No

NB: Continue on a separate sheet if necessary

10 INSURANCE COVERING LIABILITIES

Name of Insurance Company:

---

Details of cover:

---

Limit of cover:

---

11 COMPANY POLICY

Please state below, or on a separate sheet of paper, the company policy regarding:

Objectives:

---

---

Safe working practices:

---

---

Quality of work:

---

---

Technical competency:

---

---

## 12 TRAINING AND EXPERIENCE

### 12.1 Safety at Work

12.1.1 Is your company aware of and complying with, the Health & Safety at Work Act 1974, The Health & Safety (Training for Employment) Regulations 1988, The Management of Health & Safety at Work Regulations 1992 and The Electricity at Work Regulations 1989?

YES / NO

### 12.2 Technical Ability

12.2.1 Please give details below, or on a separate sheet, of the training and experience of electrical and metering systems required of your company's on site operatives. It is appreciated that different levels of training may exist depending on the complexity of work to be undertaken by individual operatives. Therefore, please give details of training and experience of supervisory operatives and the minimum requirements for any operative.

---

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---

## 13 WORKING PRACTICES

13.1 Please enclose documented procedures to be used by on site operatives covering quality, technical and safety at work.

## 14 TECHNICAL COMPETENCY LEVEL OF OPERATIVES

14.1 Are any of the company's operatives fully trained and conversant with metering systems to carry out all of the following tasks:

14.1.1 install all different types and configurations of meter?

YES / NO

14.1.2 commission new metering systems? YES / NO

14.1.3 test and calibrate installed metering systems? YES / NO

14.2 Are staff who are not fully trained and conversant with metering systems:

14.2.1 supervised by a competent person? YES / NO

14.2.2 limited in the type of work carried to their level of competency?  
YES / NO

## 15 FEES

MOCOPA® Operators who are registered will be invoiced for a registration fee. Please provide your company's order number:

ORDER NO:

## 16 CERTIFICATION

This is to certify that the above and attached information given by the company is true and accurate.

Signature: \_\_\_\_\_ Position in company: \_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

(block letters)

## **APPENDIX 6 - GUIDANCE ON THE REQUIREMENTS TO BECOME A REGISTERED MOCOPA<sup>®</sup> OPERATOR**

### **1 INTRODUCTION**

1.1 This document gives guidance on how a company should proceed if it wishes to be registered as a MOCOPA<sup>®</sup> Operator. It should be read in conjunction with the Meter Operation Code of Practice Agreement (MOCOPA<sup>®</sup>) available from [www.mocopa.org.uk](http://www.mocopa.org.uk).

1.2 It is important to note that MOCOPA<sup>®</sup> Operators, and where applicable, their employees, sub-contractors or agents, are required to comply with the Health and Safety at Work Act 1974 SI No.1380, Health & Safety (Training for Employment) Regulations 1990 SI No.2051, the Management of Health & Safety at Work Regulations 1992-SI No.635, the Electricity at Work Regulations 1989 and any other relevant legislation on safety at work.

1.3 MOCOPA<sup>®</sup> Operator registration process is in two parts. On receipt of a completed application form and satisfactory documentation being submitted by an applicant, a company can be provisionally registered by the Registration Authority as a MOCOPA<sup>®</sup> Operator for a period not exceeding three calendar months.

1.4 During the three month provisional registration period, the Registration Authority will carry out a Site Audit of a MOCOPA<sup>®</sup> Operators work. Providing satisfactory auditor reports are received, the Registration Authority will fully register the MOCOPA<sup>®</sup> Operator in accordance with clause 10.6.2 of the MOCOPA<sup>®</sup>. Further audits will be carried out at a period not exceeding twelve months after the Initial Audit, or any required repeat audits. Failure to continue to comply with the requirements of MOCOPA<sup>®</sup> may result in the registration of a MOCOPA<sup>®</sup> Operator being revoked.

### **2 PROVISIONAL REGISTRATION**

#### **2.1 INFORMATION REQUIRED**

2.1.1 The information required from an applicant before provisional registration can be given is listed below:

Company organisation chart;

Insurance arrangements to cover liabilities;

Company policy on objectives, staff training, technical competency, safety & quality;

Written procedures for operatives covering quality of work, technical information and safety;

Company procedures for training, authorisation and issue of identity cards to operatives.

## 2.2 GUIDANCE ON TYPE OF INFORMATION REQUIRED

### 2.2.1 Company Organisation Chart

2.2.1.1 The chart should show management chain from Director of the MOCOPA<sup>®</sup> Operator company down to on-site operatives. Area of work and responsibilities should be clearly shown, including agents or sub-contractors employed for any part of this work.

### 2.2.2 Insurance Cover

2.2.2.1 Details of insurance coverage and limit of liability. The latter should not be less than £1M.

### 2.2.3 Company Policy

2.2.3.1 General statement of the company's overall aims and objectives regarding the MOCOPA<sup>®</sup> Operator service they intend to operate;

2.2.3.2 Statement on minimum technical and safety training required for area of work to be undertaken by operatives;

2.2.3.3 Level of technical experience and competency required by operative;

2.2.3.4 Statement on any quality assurance system used by the company to ensure consistent good quality work.

### 2.2.4 Written Procedures

#### 2.2.4.1 Safety Procedures and Records

2.2.4.1.1 Details of operative training on safety as required by the Health and Safety (Training for Employment) Regulations and the Electricity at Work Regulations, covering areas of potential risk and ways of avoiding and identifying danger;

2.2.4.1.2 Records of training and copies of certificates issued showing level of competence for each operative;

2.2.4.1.3 Details of compliance with the Management of Health & Safety at Work Regulations 1992 requirements, including details of the risk assessment carried out;

2.2.4.1.4 For sub-station working, details of steps taken to obtain host Distribution Company authorisation or permission to enter specific sub-stations;

2.2.4.1.5 Procedure for updating operatives with any safety restrictions which may apply;

2.2.4.1.6 Details of training on action to be taken by operatives should an accident occur;

2.2.4.1.7 Procedure for reporting of incidents and informing staff;

2.2.4.1.8 Details of refresher or follow-up training where necessary;

2.2.4.1.9 Method used to safely determine that plant, wires or equipment is 'dead'.

#### 2.2.4.2 Technical Competency Details

2.2.4.2.1 Details of training and experience of operative on electrical and meter installation work.

2.2.4.2.2 Depending on the type of work undertaken by an operative, the training and experience obtained may include knowledge of the following areas:

Current transformers: principles of operation and dangers of open circuiting secondary windings. Understanding of burden, phase and ratio errors, and methods of connection;

Voltage transformers: principles of operation. Understanding of burden, phase and ratio errors, and methods of connection.

Understanding of measurement techniques, use of test equipment, measurement of kWh, kVAh, kvarh, voltage, current and insulation resistance;

Earthing systems and earth loop impedance testing;

Determination of phase rotation;

Method for proving electrical equipment and conductors are 'dead';

Understanding of wiring diagrams, electrical installation standards and practices, e.g. BEBS 12 and BS 7671:1992;

Sealing methods to be used;

On-site commissioning, testing and fault diagnosis of metering systems;

2.2.4.2.2 Use of test equipment, accuracy of test equipment, traceability of measurement and calibration of test equipment;

Control and use of meter programming devices.

### 3 ON-SITE AUDITS

3.1 Audit visits will be arranged between the auditor and MOCOPA<sup>®</sup> Operator. The auditor will carry out the following on-site assessments:-

Customer awareness of site visit by operative and auditor;

Operatives carrying ID card;

Operatives certificate showing level of competency is sufficient for work being carried out;

Understanding of reporting mechanisms in the case of unsafe or damaged installations giving rise to danger;

Knowledge of actions to be taken in case of accident;

Working procedures being followed by operatives;

Proving electrical equipment and conductors are 'not live';

Shrouding and temporary labelling potentially hazardous areas;

Measuring voltage and current and determining polarity where necessary;

Method of identifying wiring connections on site;

Installing, commissioning and programming of meter;

Safe working practices, including the correct use of insulated tools;

Sealing procedures for cut-outs, test terminal blocks, meters etc.

3.2 These audits will be carried out as soon as practical after a company has been provisionally registered as a MOCOPA<sup>®</sup> Operator. The total number of sites visited by an auditor will depend on the auditor being satisfied that a MOCOPA<sup>®</sup> Operator is compliant for all the different types of metering systems and sites being worked on.

#### 4 FULL REGISTRATION

4.1 Following provisional registration and a satisfactory auditor's report, a company can be fully registered as a MOCOPA<sup>®</sup> Operator for an indefinite period. Annual audits will be carried out by the Registration Authority to ensure continued compliance with MOCOPA<sup>®</sup>.

**APPENDIX 7 - ASSESSMENT OF APPLICATION TO BE REGISTERED AS A MOCOPA<sup>®</sup> OPERATOR**

1 COMPANY IDENTIFICATION

1.1 Company name: \_\_\_\_\_

1.2 Company address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tel No \_\_\_\_\_

2 ASSESSMENT OF INFORMATION SUPPLIED

2.1 ORGANISATIONAL CHART

2.1.1 Chart submitted? YES / NO

2.1.2 Does the chart clearly show chain of responsibility from operative to manager/director level? YES / NO

2.1.3 If answer to either 2.1.1 or 2.1.2 is NO then refer deficiencies back to applicant.

2.2 AGENTS OR SUB-CONTRACTORS

2.2.1 Are agents or sub-contractors being used? YES / NO

2.2.2 If YES to 2.2.1, have any been identified and shown on organisation chart? YES / NO

2.2.3 If NO to 2.2.2, refer back to applicant.

2.3 INSURANCE

2.3.1 Have insurance details been included? YES / NO

2.3.2 Is valid public liability covered to at least £1M? YES / NO

2.3.3 If either 2.3.1 or 2.3.2 is NO refer deficiencies back to applicant.

## 2.4 COMPANY POLICY

2.4.1 Has the company given reasonable objectives concerning its MOCOPA<sup>®</sup> Operator business? YES / NO

2.4.2 Does the company's stated policy on safe working practices appear to be sound? YES / NO

2.4.3 Has the company made any reasonable attempt to state its policy with regard to quality of work and/or materials? YES / NO

2.4.4 Does the company's policy on staff training appear to be adequate and appropriate? YES / NO

2.4.5 Is the company's statement on technical competency sound and reasonable? YES / NO

2.4.6 If any answer 2.4.1 through to 2.4.5 is NO refer deficiencies back to applicant.

## 2.5 TRAINING AND EXPERIENCE

2.5.1 Has the company indicated that it is aware of and complying with all relevant Health & Safety legislation relating to safety at work? YES / NO

2.5.2 Are the details on operative/supervisor training and experience, appropriate and adequate for the work of installing and commissioning metering systems? YES / NO

2.5.3 If either 2.5.1 or 2.5.2 is NO refer deficiencies back to applicant.

## 2.6 WORKING PRACTICES

2.6.1 Has satisfactory documentation been submitted covering procedures used by on-site operatives covering quality, technical instructions and safety at work? YES / NO

2.6.2 If NO to 2.6.1, has the applicant indicated that such documents are available for inspection by the auditors? YES / NO

2.6.3 If either 2.6.1 or 2.6.2 is NO refer deficiencies back to applicant.

## 2.7 TECHNICAL COMPETENCY

2.7.1 Has the applicant indicated that supervisors or operatives can:-

2.7.2 install all different types and configurations of meters the company intend to use? YES / NO

2.7.3 commission new metering systems? YES / NO

2.7.4 test and calibrate installed metering systems? YES / NO

2.7.5 supervise operatives who are not fully trained or conversant with metering systems? YES / NO

2.7.6 If any answer 2.7.1 through to 2.7.5 is NO refer deficiencies back to applicant.

## 2.8 FEES

2.8.1 Has applicant included an order number for registration fee? YES / NO

2.8.2 If NO to 2.8.1, refer back to applicant.

## 3 PROVISIONAL REGISTRATION

3.1 Has the overall assessment criteria given in section 2 been met? YES / NO

3.2 Has the COP Agreement or an Accession Agreement been signed by the applicant? YES / NO

3.3 Has an invoice order number been given? YES / NO

3.3 If answers to 3.1, 3.2 and 3.3 are YES, applicant can be provisionally registered as a MOCOPA® Operator.

4.5 The undersigned members of the Registration Authority are satisfied that

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

are competent to be provisionally registered as a MOCOPA® Operator subject to satisfactory audit reports being received within 3 months of registration.

Signed: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## **APPENDIX 8 – REGISTRATION AUTHORITY FEES**

- 1 Recovery of Costs
  - 1.1 The allocation of budget costs is decided by the Review Panel in accordance with MOCOPA<sup>®</sup> clause 7.11.
  - 1.2 The method of allocation of Fees between MOCOPA<sup>®</sup> Operators and Distribution Businesses are set out in MOCOPA<sup>®</sup> Clause 2.4.
2. Initial Fee
  - 2.1 The initial Fee for admission to the MOCOPA<sup>®</sup>, under clause 2.6, as a new MOCOPA<sup>®</sup> Operator will be the same as the annual Fee paid by a MOCOPA<sup>®</sup> Operator in the year in which the new MOCOPA<sup>®</sup> Operator is admitted.
  - 2.2 Annual Fees will become due at the start of each Financial Year.
3. Annual Fee
  - 3.1 The annual fee is the sum paid by each Party in respect of their contribution to the Budget.

**APPENDIX 9 – NON-COMPLIANCE REPORT**

**THIS REPORT IS REQUIRED WHEN A MOCOPA® PARTY BELIEVES ANOTHER PARTY HAS NOT COMPLIED WITH THE REQUIREMENTS OF THE MOCOPA®**

1 Non Compliance Details

1.1 Name of person making report: -----

Affiliation of person making report -----  
(i.e. company name):

1.3 Company address: -----  
-----  
-----  
-----

Tel No -----

1.4 Date complainants letter received -----

Name of MOCOPA® Party against whom the -----  
non-compliance is reported Tel No-----

The name and address of the customers -----  
premises/site where the non-compliance arose (if applicable): -----  
-----  
-----

Tel No-----

Describe the nature of the non-compliance (copy of complainants letter should also be attached). Please include any supporting evidence:

-----  
-----  
-----  
-----  
-----

2 ACTION BY THE REGISTRATION AUTHORITY

2.1 On the basis of the letter received, does the non-compliance require an auditor to visit the site referred to in the complainants letter? YES / NO

2.2 If answer to 2.1 is YES, then advise the Review Panel and appoint an auditor:

2.2.1 auditor appointed: \_\_\_\_\_

2.2.2 Date appointed: \_\_\_\_\_

2.2.3 Date of letter to complainant stating action taken: \_\_\_\_\_

2.2.4 Date MOCOPA® Party informed of non-compliance and action taken:  
\_\_\_\_\_

2.3 If answer to 2.1 is NO, date of letter to complainant \_\_\_\_\_

Registration Authority signature:  
\_\_\_\_\_

Name: \_\_\_\_\_ Date completed: \_\_\_\_\_

3 AUDITOR'S REPORT

3.1 Date received notification of appointment: \_\_\_\_\_

Date first made contact with  
MOCOPA® Operator to arrange site visit \_\_\_\_\_

3.3 If permission to visit site cannot be obtained, auditor is to refer this matter to the Registration Authority giving full details.

Date referred back to Registration Authority: \_\_\_\_\_

Details: \_\_\_\_\_

3.4 Date of site visit: \_\_\_\_\_

Against each separate complaint made, state whether complaint was justified:

\_\_\_\_\_

3.6 Were all other aspects of the metering installation satisfactory? YES / NO

3.7 Give any further relevant comments below including any mitigating or other circumstances that may have caused this complaint to arise:

\_\_\_\_\_

3.8 Is corrective action need to be taken by the MOCOPA® Operator on this site? YES / NO

3.9 Does the MOCOPA® Operator need to amend or add to his work procedures? YES / NO

If answer to 3.8 or 3.9 is YES, please detail your recommendations:

3.11 On the basis of the site visit and any other relevant evidence, was the complaint against the MOCOPA® Operator justified?

Fully  Partially  Not at all

Please comment:

3.12 Does the Registration Authority need to take any action against the MOCOPA® Operator? YES / NO

If answer to 3.12 is YES, describe what action is necessary:

Auditor's signature: \_\_\_\_\_

Date returned to Registration Authority: \_\_\_\_\_

4 ACTION TAKEN BY THE REGISTRATION AUTHORITY

4.1 Was the complaint justified? YES / NO

4.2 If answer to 4.1 is YES, what action against the MOCOPA® Operator is to be taken:

---

---

4.3 Date letter sent to MOCOPA® Operator advising of Registration Authority's findings  
\_\_\_\_\_ and specifying any action to be taken:

4.4 Date letter sent to complainant advising of \_\_\_\_\_  
Registration Authority's findings and copy of MOCOPA® Operator letter:

4.5 If required, date of MOCOPA® Operators response:

---

4.5.1 If required was it received by required date? YES / NO

4.5.2 If answer to 4.5.1 is NO, action taken: \_\_\_\_\_

4.5.3 Did the MOCOPA® Operator confirm that they had taken the required action?  
YES / NO

If answer to 4.5.3 is NO, what action is to be taken by the Registration Authority?

---

---

---

4.6 Date referred back to the Review Panel and auditor:

---

4.7 Registration Authority signature:

---

Name: \_\_\_\_\_ Date completed: \_\_\_\_\_

5 FOLLOW-UP AUDIT (n.b. if required)

5.1 Date of follow-up site visit: \_\_\_\_\_

5.2 Has corrective action been taken?

Completely  Partially  None

5.3 If answer to 5.2 is not completely, please give details of actions still outstanding:

\_\_\_\_\_  
\_\_\_\_\_

5.4 If answer to 5.2 is “completely”, does the MOCOPA® Operators  
YES / NO

work fully conform to the MOCOPA®?

5.5 If answer to 5.4 is NO, please give full details of non-conforming work:

\_\_\_\_\_  
\_\_\_\_\_

5.6 auditor's signature: \_\_\_\_\_

auditors Name: \_\_\_\_\_

Date returned to Registration Authority: \_\_\_\_\_

6 SUMMARY OF REGISTRATION AUTHORITY'S ACTIONS

6.1 On the basis of the complainants letter, was an auditor appointed? YES / NO

6.2 Did the auditor confirm that any of the complaints made were justified? YES / NO

6.3 Did the MOCOPA<sup>®</sup> Operator carry out the required work/actions satisfactorily? YES / NO

6.4 Is further action against the MOCOPA<sup>®</sup> Operator necessary YES / NO

(e.g. severe warning or removal of registration)?

6.5 If answer to 6.4 is YES, what action is to be taken?

---

---

6.6 Were both parties advised that if they did not agree with the decision of the Registration Authority, they could refer the matter to the MOCOPA<sup>®</sup> Review Panel? YES / NO

6.7 Registration Authority signature: \_\_\_\_\_

Name: \_\_\_\_\_

Date completed: \_\_\_\_\_

7 MOCOPA® REVIEW PANEL

7.1 Date of meeting this case was discussed at the review Panel:

\_\_\_\_\_

7.2 Did any party complain to the Review Panel about the Registration Authority's decision? YES / NO

7.3 If answer to 7.2 is YES, then:

7.3.1 Date complaint received:

\_\_\_\_\_

7.3.2 Name and affiliation of complainant:

\_\_\_\_\_

7.3.3 Nature of complaint:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7.3.4 Was the complaint upheld by the Review Panel?

Fully  Partially  Not at all

7.3.5 Did the Review Panel recommend any further action to be taken by the Registration Authority? YES / NO

7.3.6 If answer to 7.3.5 is YES, what action was recommended?

\_\_\_\_\_  
\_\_\_\_\_

7.4 Were any other comments or recommendations made by the Review Panel? YES / NO

7.4.1 If answer to 7.4 is YES, what comments or recommendation were made?

\_\_\_\_\_  
\_\_\_\_\_

8 FOLLOW-UP ACTION

8.1 Give details of any changes made to Registration Authority's procedures as a result of any recommendations made by the Review Panel:

---

---

8.2 Registration Authority signature: \_\_\_\_\_ Date: \_\_\_\_\_

**APPENDIX 10 – MOCOPA® OPERATOR FINAL REPORT**

1.0 AUDIT REPORT FOR PERIOD:

2.0 MOCOPA® Operator Name:

3.0 Address of MOCOPA® Operator:

4.0 List of Documents used:

MOCOPA® Registration Authority Manual / Operators Manual of Working procedures Ref No

Operators Manual of Safe working Practices Ref No

Other:

5.0 Audit Programme: Attached

6.0 Personnel attending post audit meeting:

7.0 Summary of Results: Non Conformity  Observations

8.0 Detailed Non Conformity: Attached

9.0 Closed out Corrective Actions: Attached

10. Recommendation:

11.0 Auditor Name:

12.0 Signed: Dated:

**APPENDIX 11 – REGISTRATION AUTHORITY NON-COMPLIANCE REPORT**

File No \_\_\_\_\_ Sheet \_\_\_ of \_\_\_ Non conformity No \_\_\_\_\_

AREA	DETAILS OF NON COMPLIANCE	CLAUSE

Receipt of non-compliance report acknowledged and content understood

Signed for MOCOPA® Operator: \_\_\_\_\_ Date: \_\_\_\_\_

Signed for Registration Authority: \_\_\_\_\_ Date: \_\_\_\_\_

**DETAILS OF MOCOPA® OPERATORS PROPOSED CORRECTIVE AND PREVENTIVE ACTIONS**

Proposed completion date: \_\_\_\_\_

Signed for MOCOPA® Operator: \_\_\_\_\_

**COMMENTS OF AUDITOR**

Signed for Registration Authority: \_\_\_\_\_ Dated: \_\_\_\_\_

## APPENDIX 12 – AUDIT OF MOCOPA® OPERATOR HEADQUARTERS ACTIVITIES

MOCOPA® Operator Name and Address:

Auditor Name:

Date of Audit:

### Contents

PART 1	Section 1	Management Organisation
	Section 2	Safety Requirements
	Section 3	Training of Operatives
	Section 4	Distribution Network Operator Requirements
	Section 5	Appointment and Registration of Competent Persons
	Section 6	Appointment of Subcontractors
	Section 7	Technical Requirements
	Section 8	Administration and Other requirements
	Section 9	Sealing Of Equipment
	Section 10	Auditors Conclusions

Note: PART 2 of this report may contain confidential information, therefore is not available outside of the Registration Authority.

Audit of MOCOPA® Operator Headquarters Activities

	Comments	Conform Yes No
<b>1. Management Organisation (Schedule 5 Para 1.1)</b>		
<b>Audit Prerequisite</b>	Audit should not progress if any non conformity recorded	
1.1 Has the MOCOPA® Operator Adequate Insurance Cover in place (Public Liability £1M)?	Please forward a copy to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
<b>Accession Requirements</b>		
1.2 Is there an organisation chart giving a chain of responsibility from the head of the organisation to operative installing meters?	Please forward a copy of the chart, including names to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
1.3 Please enter details of the MOCOPA® Operator point of contact for organising site visits?		
1.4 Please enter details of the Authorising representative for the purposes of the MOCOPA® Audit?		
1.5 Please enter details of the H&S representative for the purposes of the MOCOPA® Audit?		
1.6 Please enter details of the Training representative for the purposes of the MOCOPA® Audit?		
1.7 Please enter details of the Technical representative for the purposes of the MOCOPA® Audit?		
1.8 Please enter details of the Admin representative for the purposes of the MOCOPA® Audit?		
1.9 Please enter details of the person responsible for the appointment of sub contractors?		
1.10 Have any of the above personnel changed since the last audit?		
<b>2.0 SAFETY REQUIREMENTS (Schedule 5 Para 1.1)</b>		
2.1 H&S Policy (Schedule 5 Para 1.1)  Does the MOCOPA® Operator have a written H&S Policy signed by the current head of the Organisation?	Please forward a copy to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
2.2 Accident Investigation (Schedule 5 Para 1.1)	Please forward a copy of your accident reporting procedures to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	

	Comments	Conform Yes No
Has any preventative action been taken as a result of any review of accident records?	Please declare the number of Lost Time Incidents (LTIs) investigated since the last submission and the number of LTIs per 10,000 hours worked since the last submission.	
<b>2.3 Safety Audits</b> (Schedule 5 Para 1.1)		
Is there a procedure and programme for site safety audits?	Please forward a copy of your procedures to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
	Please also send information on the number of site safety audits completed since the previous MOCOPA® Audit, a summary of the results and the defect rate.	
<b>2.4 General Duty of Care</b> (Schedule 5 Para 1.1)	Please send copies of relevant policies to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
<b>2.5 Electricity at Work</b> (Schedule 5 para 1.1.2)	Please ensure that a copy is available at your headquarters for inspection by the Auditor.	
<b>3.0 TRAINING OF OPERATIVES</b> <b>(1.4.1)</b>	Comments	Conform Yes No
	Please send a copy of your training policy to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a> , including information on your Authorisation and re-Authorisation training.  Please also provide the number of Operatives Authorised since the last MOCOPA® Audit.	
<b>4.0 DISTRIBUTION BUSINESS REQUIREMENTS</b> <b>Distribution Safety Rules</b> <b>(Schedule 5 Para 1.1.3)</b>		
Please provide a list of which operatives are authorised by which Distribution Business	Please send a copy of this data to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
<b>4.1 Operational Restrictions and Reporting 1.1.4</b>		
<b>4.2 Can the MOCOPA® Operator demonstrate how operational restrictions are passed on to operatives?</b>		

	Comments	Conform Yes No
4.3 Can the MOCOPA® Operator demonstrate how defects are reported to Distribution Business?		
<b>5.0 APPOINTMENT AND REGISTRATION OF COMPETENT PERSONS (1.4.2)</b>	Please send a copy of your Authorising Policy to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
<b>6.0 APPOINTMENT OF SUBCONTRACTORS</b>		
Please name of the person responsible for the appointment of sub contractors.		
Please confirm that the person is qualified to carry out these duties.		
6.1 Is there a register of subcontractors?	Please send a copy to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
6.2 Was the Registration Authority informed within 15 Business Day of the appointment any new subcontractor?		
<b>7.0 SEALING OF EQUIPMENT (1.4.3)</b>		
7.1 Does the MOCOPA® Operator have a Register of Sealing Die?	Please send a copy to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
7.2 Is the Register up to date?	Please confirm that the Register is up to date.	
7.3 Does the MOCOPA® Operator have a unique ID?	Please send a copy of your Unique ID's to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
7.4 Does each operative have a unique ID number?	Please confirm that each Operative has a unique ID Number	
7.5 Is there evidence that redundant die are destroyed?	Please send any relevant evidence to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
7.6 Are there any checks for wear on die in use?		
7.7 Does the Register include all operatives involved with MOCOPA® work?		
<b>8.0 TECHNICAL REQUIREMENTS (Schedule 5 para 1.2)</b>		

	Comments	Conform Yes No
Name of appointed Technical Representative	Please send details to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
Related qualifications held and brief details of appropriate experience.		
8.1 General 1.2.1		
8.2 Can the MOCOPA® Operator demonstrate that they are working to the current version of:  Electricity Act, Schedule 7		
<b>9.0 INTERNAL AUDITS (1.4.6)</b>		
9.1 Does the MOCOPA® Operator have an internal audit procedure?	Please send a copy to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
9.2 What evidence is there of the adequacy of internal audits having been conducted since the last MOCOPA audit?	Please send any relevant evidence to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
<b>10.0 ADMINISTRATION AND OTHER REQUIREMENTS (1.4)</b>		
Name of appointed Administration representative	Please send details to <a href="mailto:MOCOPA@gemserv.com">MOCOPA@gemserv.com</a>	
Related qualifications held and brief details of appropriate experience.		

**11.0 AUDITOR CONCLUSIONS**

Total number of Non Conformity

Total number of Observations

Comments

Can the MOCOPA<sup>®</sup> Operator continue to operate effectively while corrective action is taken?

Should the next annual audit be brought forward – or be carried out at the MOCOPA<sup>®</sup> Operators premises?

Is the Non Conformity of a nature so as to require an immediate close out?

Can the audit be closed out at the time of the next annual audit?

Should the MOCOPA<sup>®</sup> Operator remain registered with the Registration Authority?

Any other comments

Auditors Signature:

Date:

**APPENDIX 13 – AUDIT REPORT ON TESTING, INSTALLING AND COMMISSIONING OF CT OPERATED METERING SYSTEMS**

Name of MOCOPA® Operator

Name of sub contractor if used:

Name of Meter Operative

Site Name and Address

Name of Auditor:

Date of Audit:

Clause		Comments	Conform Yes No	
	1.0 PREREQUISITE			
1.2.4	Are any site specific restrictions or precautions necessary  Has the operative got relevant VT & CT ratios?			
	SAFETY REQUIREMENTS (2.2) (Schedule 5 para 2.2)			
1.1.2	Was the customer aware of the site visit?			
2.2.5	Did the operative have: Adequate job instructions?			
2.3.2	Company / Supplier identification?			
2.3.2	Relevant Competency Certificate?			
	2.0 SAFETY REQUIREMENTS (2.2) cont (Schedule 5 para 2.2)			

Clause		Comments	Conform Yes No	
2.2.4	If relevant did the operative have Distribution Business authorisation to enter sub-stations?			
2.2.2	Copies of the MOCOPA® Operator safe working practices?			
2.2.2	Safety equipment as provided and listed by the MOCOPA® Operator?			
2.2.2	Where appropriate was safety equipment inside “do not use after date”?			
2.2.5	Did the operative carry out site risk assessment before any work			
2.2.5	Was the operative able to undertake the work in accordance with job instructions?			
2.2.6	Was the operative familiar with procedures relating to reporting incidents such as damaged or defective equipment, potential hazards and interference?			
1.2.6	Had the metering equipment been safely transported so as to prevent damage and danger prior to installation?			
	3.0 SEALING (Appendix 8)			
1.4.3	Was access to terminal cover, test block and metering fuses sealed?	Yes / No		
1.4.3	Was all relevant equipment resealed (as applicable) in accordance with Appendix 8 to MOCOPA®?  Were all redundant seals removed from site?	Yes / No  Operator ID      Operative ID <input type="text"/> <input type="text"/>  Yes / No		
	4.0                  INSTALLED                  METERING EQUIPMENT			

Clause		Comments	Conform Yes No	
	Is the meter being installed and/or tested in accordance with the:			
1.2.1	appropriate for the type of supply?	Yes / No		
1.2.1	installed and connected in an approved manner?	Yes / No		
2.5(a)	correctly configured for the VT & CT ratio?	Yes / No		
2.3.2	connections sound, correct and safe?	Yes / No		
2.5(a)	configured for the correct tariff (where appropriate)?	Yes / No		
4.3.3	had all redundant panel holes been blanked?	Yes / No		
Code 4 (App 1)	Did the connected burden exceed the rated VA burden of CT?	Yes / No		
"	Did the connected burden exceed the rated VA burden of VT (if appropriate)?	Yes / No		
	<p>Note</p> <p>In the absence of rating information assume burden limits of 5.0VA for CTs and 50.0VA for VTs.</p>			
	5.0 ON SITE TESTS			

Clause		Comments	Conform	
			Yes	No
2.3.2	Did the operative correctly short out the CT's and confirm it?			
2.5(g)	Did the operative prove the equipment was not live before carrying out any works?			
2.5(g)	Was equipment used for conducting the above tests proven first?			
2.3.2	Was operative familiar with the existing wiring arrangement?			
4.3.3	Was accuracy test equipment within its calibration period?			
2.2.2	Was the operative trained in the use of the equipment?			
2.5(g)	Did the operative take suitable precautions when working near live conductors that could not be made dead?			
	<b>COMPLETION OF AUDIT</b>			
	Was site left in clean and safe condition	Yes / No		
	<b>5.0 AUDITORS CONCLUSIONS</b>			

Clause		Comments	Conform Yes No	
	Total Non Conformities	<input type="text"/>		
	Total Observations	<input type="text"/>		
	Comments			
	Was the operative sufficiently trained and competent to undertake the work?	Yes / No		
	Can the operative continue to operate effectively while any corrective action is taken	Yes / No		
	Should the operative be subject to more frequent audit?	Yes / No		
	Are any non conformities of a nature so as to require an immediate withdrawal of operatives competency certificate by the MOCOPA® Operator?	Yes / No		

Any other comments

Auditors Signature:

Date:

**APPENDIX 14 – AUDIT REPORT ON INSTALLING AND COMMISSIONING WHOLE CURRENT METERING SYSTEMS**

Name of MOCOPA® Operator:

Name of sub contractor if used:

Name of operative

Site Name and Address:

Name of Auditor:

Date of Audit:

Clause		Comments	Conform Yes No
	1.0 SAFETY REQUIREMENTS (2.2) (Schedule 5 para 2.2)		

Clause		Comments	Conform Yes No	
1.1.2	<p>Was the customer aware of the site visit?</p> <p>Had the customer received at least 2 working days notice</p> <p>Did the operative have:</p>			
2.2.5	Adequate job instructions?			
2.3.2	Suitable ID?			
2.3.2	Valid Competency Certificate to cover the proposed work			
2.2.2	A copy of the MOCOPA <sup>®</sup> Operator safe working practices?			
2.2.2	Safety equipment as provided and listed by the MOCOPA <sup>®</sup> Operator?			
2.2.2	Where appropriate was safety equipment inside “do not use after date”?			
2.2.5	Did the operative carry out site risk assessment before any work?			
2.2.5	Was it reasonable for the operative to continue in accordance with job instructions?			
2.2.6	Was the operative familiar with procedures relating to reporting incidents such as damaged or defective equipment, potential hazards and interference?			
1.2.6	Had the metering equipment been safely transported so as to prevent damage and danger prior to installation?			
	2.0 TECHNICAL REQUIREMENTS (2.3) (Schedule5 para 2.3)			

Clause		Comments	Conform Yes No	
	PREREQUISITE			
1.2.1	Did operative conduct the following checks:			
2.2.6	The integrity of the service cut-out?			
2.2.6	The integrity of the meter board (including any indication of asbestos)?			
2.5(b)	All seals intact and no evidence of tampering?			
4.3.4/5	Record all meter readings from redundant meter(s)?			
4.3.3	confirm polarity in accordance with company procedures?			
2.5(g)	confirm phase rotation (if applicable)?			
2.3.2	Did the operative know the procedure in the event of a failure of any of the above?			
2.3.2	Did the operative have any instructions as what to do with the redundant metering equipment?			
	2.2 INSTALLING NEW METERING EQUIPMENT			
4.3.3	Did the MOCOPA <sup>®</sup> Operator prove the equipment was not live before carrying out any works?			
2.2.2	Was equipment used for conducting the above tests proven first?			
2.5(g)	Was operative familiar with the existing wiring arrangement?			
	Did the operative treat redundant metering with due care and attention			
	Did the operative appear to be trained in safe working practices			
	Did the operative take suitable precautions when working near live conductors that could not be made dead			
	Did the operative remove all redundant wiring			

Clause		Comments	Conform Yes No	
	2.0 TECHNICAL REQUIREMENTS (2.3) (Schedule5 para 2.3)			
2.3.2  COP 6/7  2.5(a)	<p data-bbox="215 324 766 392">2.3 INSTALLED METERING EQUIPMENT</p> <p data-bbox="215 459 766 492">Was the meter of an approved pattern?</p> <p data-bbox="215 526 766 627">Was the meter appropriate for the type of supply and compliant with the relevant BSC COP?</p> <p data-bbox="215 660 766 728">Did the operative confirm correct polarity in accordance with company procedures?</p> <p data-bbox="215 761 766 862">Did the operative confirm the phase rotation at the meter terminal block (if appropriate)</p> <p data-bbox="215 896 766 996">Was the meter installed and connected in accordance with MOCOPA<sup>®</sup> Operator procedures?</p> <p data-bbox="215 1030 766 1097">Was the meter configured for the correct tariff as required by the job instruction?</p> <p data-bbox="215 1131 766 1232">Was the service fuse appropriate for the load, the customer's tails and the rating of the meter?</p>			
	2.0 TECHNICAL REQUIREMENTS (2.3) (Schedule5 para 2.3)			
	3.0 SEALING (Appendix 8)			

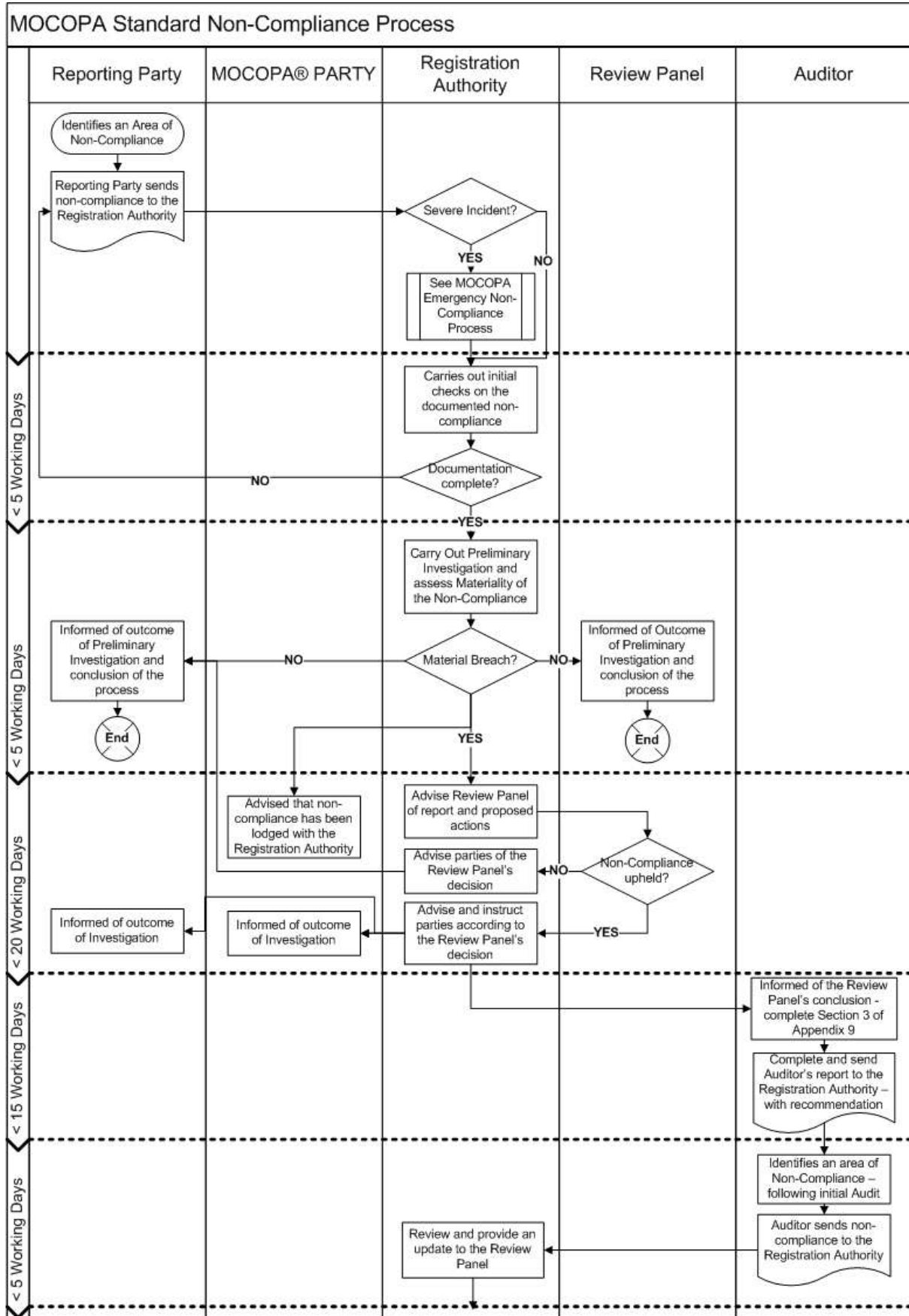
Clause		Comments	Conform Yes No	
1.4.3	Was Distribution Business equipment including the cut out sealed in accordance with Appendix 8 to MOCOPA®?	Yes / No		
1.4.3	Was all metering equipment sealed in accordance with appendix 8 to MOCOPA®?	Yes / No		
	COMPLETION	Operator ID <input type="text"/>		
	Did the operative remove all redundant seals, wiring and debris created by his work?	Operative ID <input type="text"/> Yes / No		
	Was the site left in a safe condition?	Yes / No		
	Was the customer left a copy of old and new meter readings	Yes / No		
	4.0 AUDITORS CONCLUSIONS			
	Total Non Conformity	<input type="text"/>		
	Total Observations	<input type="text"/>		
	Comments			
	Can the operative continue to operate effectively while any corrective action is taken?	Yes / No		
	Should the operative be subject to more frequent audits?	Yes / No		
	Are any non conformities of a nature so as to require an immediate withdrawal of operatives competency certificate by the MOCOPA® Operator?	Yes / No		

Any other comments

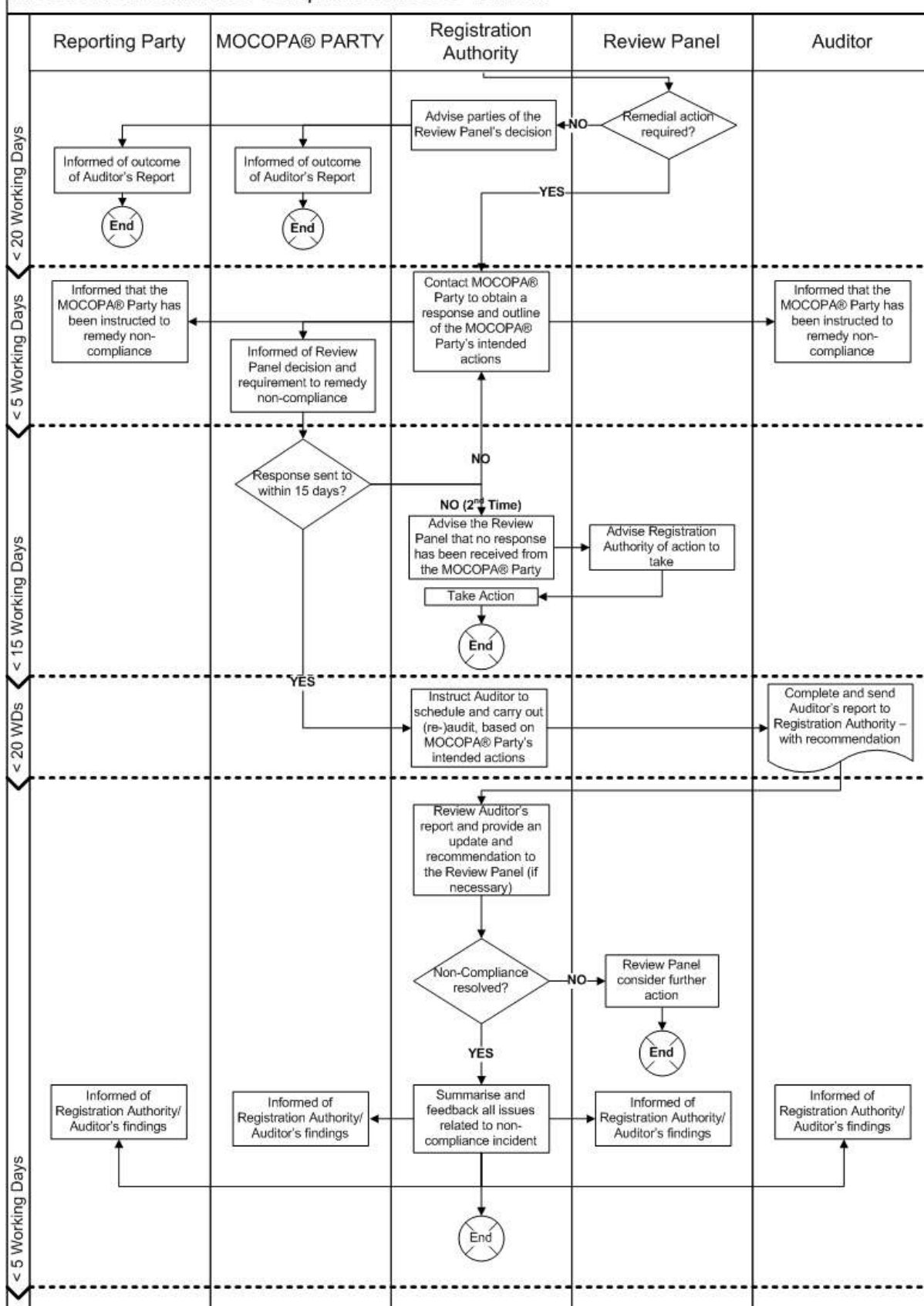
Auditors Signature:

Date:

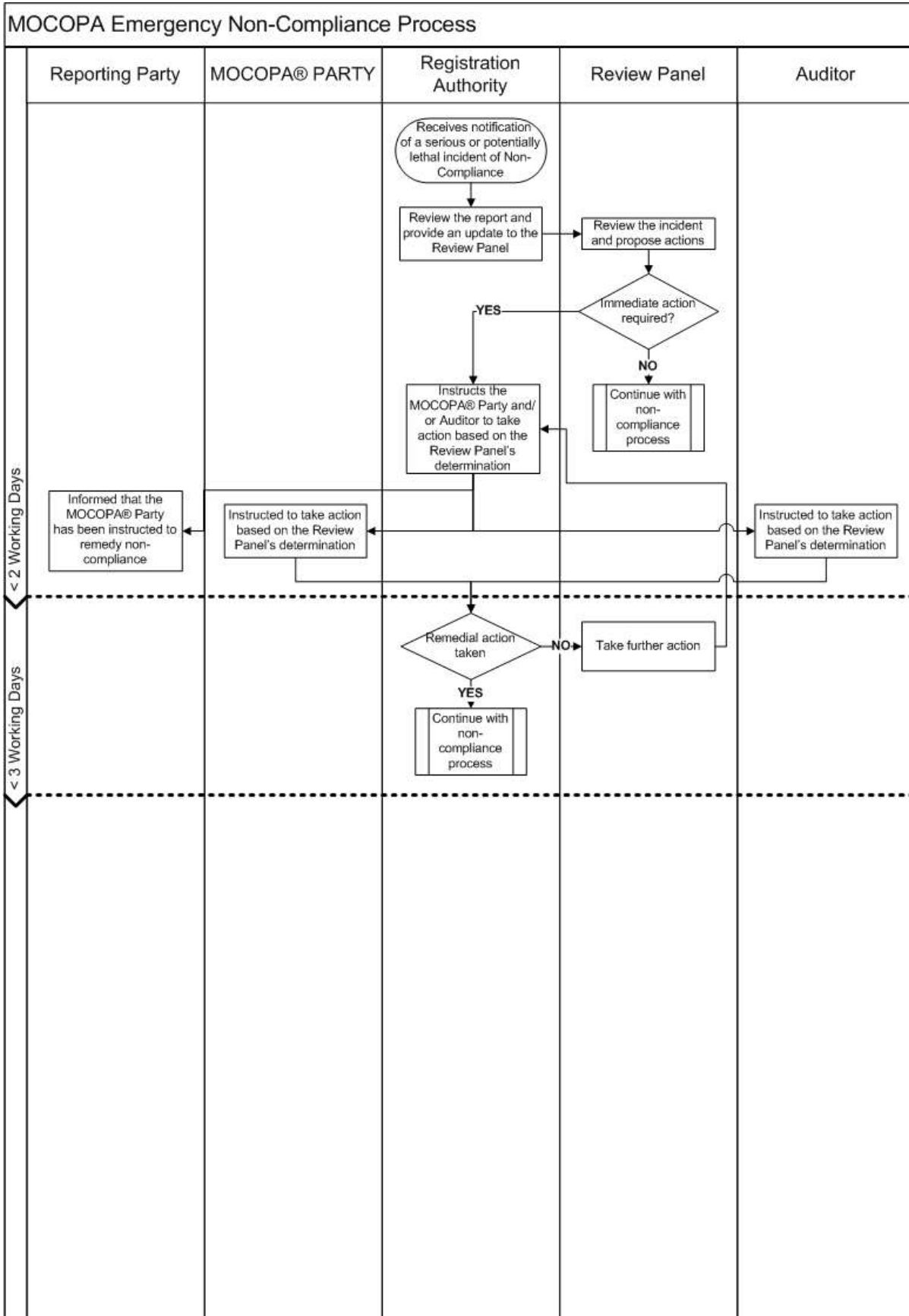
**APPENDIX 15 – STANDARD NON-COMPLIANCE PROCESS**



MOCOPA Standard Non-Compliance Process cont'd...



# APPENDIX 16 – EMERGENCY NON-COMPLIANCE PROCESS



**Appendix 17 – DISTRIBUTION BUSINESS PRE-AUDIT QUESTIONNAIRE**

**AUDIT OF  
DISTRIBUTION BUSINESS MOCOPA® OBLIGATIONS  
Pre-Audit Questionnaire**

**Change History**

Version Number	Draft/ Issued	Date of Issue	Reason for Change	Change Control Reference
1.0	Issued	25/02/2011	Initial Draft	

**Quality Assurance**

Name	Role & Responsibility	Signature	Date
Editor:			
Ryan Perry	MOCOPA Registration Authority		18 October 2010
Reviewer(s):			
Tony Thornton			
Authorised:			
Tony Thornton			25 Feb 2011

Version :	1.0
Status :	APPROVED
Date :	25/02/2011
Document Reference :	

**DISTRIBUTION BUSINESS MOCOPA® PRE AUDIT QUESTIONNAIRE**

Organisation Name:
Main Contact Name:
Full Contact Address:
Company Registered Number:
Contact Details:
Tel:
Fax:
Email:

Date received by Registration Authority: \_\_\_\_\_

## Business Details and Coverage

	Detail	Your Response
1	Who is the MOCOPA <sup>®</sup> Operators “point of contact” within the company?	
2	What is this person’s role/position within the company?	
3	Please provide an organisation chart showing the operational link to the MOCOPA <sup>®</sup> Operators?	
4	Which MOCOPA <sup>®</sup> Operators do you currently allow to work within your Distribution Network?	
5	Outline the process for making site specific information available to MOCOPA <sup>®</sup> Operators?	
6	Is your company aware of the MOCOPA <sup>®</sup> website and availability to upload Company documentation? How often is the website used?	
7	How does your company monitor and circulate Distribution Business specific information (including safety bulletins) to MOCOPA <sup>®</sup> Operators?	
8	Has information relating to any organisational or policy changes in accordance with Appendix 2.1 been updated annually?	
9	Please explain how your company complies with respect to notifying the MOCOPA <sup>®</sup> Operators of options exercised re access to substations and to Fuses (i.e. within the 5 Business Day).	
10	Are company policies and procedures regarding energising suppliers (MOCOPA <sup>®</sup> Operators), damaged meters, and equipment service requests etc, clearly and accurately documented in the information provided on the MOCOPA <sup>®</sup> website?	

	<b>Detail</b>	<b>Your Response</b>
11	Explain the companies' procedures for completing equipment repairs, including communications to MOCOPA <sup>®</sup> Operators?	
12	How does the company liaise with MOCOPA <sup>®</sup> Operators for the provision of new supplies?	
13	Explain how your company meets the requirements of MOCOPA Schedule 5 Section 5: New Metering Points?	
14	Outline your company processes for communicating with MOCOPA <sup>®</sup> Operators when there is a physical change to the meter position or a CT / VT ratio is changed?	
15	Does your company have a process for providing CT / VT test certificates and other site-specific information? If so, please explain.	
16	Does your company have records of the CT and VT errors for all the CTs and VTs connected on its' system and is this information accessible to MOCOPA <sup>®</sup> Operators?	
17	Explain the process of how your company reseals MOCOPA <sup>®</sup> Operator equipment?	
18	Does your company provide test and connection facilities for MOCOPA <sup>®</sup> Operators at its' CT/VT metered sites? If so, explain process of how this is done?	
19	Does your company have a register of Sealing Plier IDs issued? If so, can these be provided to the Registration Authority upon request?	
20	Does your company use BEBS 12 ferrule markings on CT/VT operated metering secondary wiring?	
21	Are MOCOPA <sup>®</sup> Operator operatives assessed by the company prior to working on your Distributor service terminations?	

	<b>Detail</b>	<b>Your Response</b>
22	If yes to question 21, what is the frequency of re-assessment?	
23	Does your company have procedures in place to provide the training (if applicable) or MOCOPA <sup>®</sup> Operator staff to comply with the above?	
24	If yes to question 23, is this training chargeable?	
25	Are copies of the company's distribution safety rules available to all MOCOPA <sup>®</sup> Operator staff authorised to work in its' area?	

**Appendix 18 – AUDIT OF DISTRIBUTION BUSINESS HEADQUARTERS ACTIVITY**

**AUDIT OF  
DISTRIBUTION NETWORK OPERATOR MOCOPA® OBLIGATIONS**

**Change History**

Version Number	Draft/ Issued	Date of Issue	Reason for Change	Change Control Reference
1	Issue		Initial Draft	
1.1	first revision		Tables put into new format	
1.2	Second Revision		Amendment following comments from Tony Thornton	
1.3	Third Revision		Audit sections put into numeric order	
1.4	Fourth Revision		Minor textual changes to replace DNO with Distribution Business	
1.5	Issued	25 February 2011	Text and terminology changes following Party Consultation.	

**Quality Assurance**

Name	Role & Responsibility	Signature	Date
Editor:			
Chris Phelps	Create		14 May 2010
Reviewer(s):			
Ryan Perry	RA Authority		Jan 2011
Authorised:			
Tony Thornton	RA Authority		Feb 2011

Version:	1.4
Status:	ISSUED
Date:	25 Feb 2011
Document Reference:	-

METER OPERATION CODE OF PRACTICE AGREEMENT

Registration Authority

**AUDIT OF DISTRIBUTION NETWORK OPERATOR MOCOPA® OBLIGATIONS**

DISTRIBUTION BUSINESS [ Name and Address]:

Auditor Name:

Date of Audit:

Contents	
Part 1	General operational liaison
Part 2	Maintained status of information
Part 3	Information required by a MOCOPA® Operator
Part 4	Miscellaneous technical issues
Part 5	Authorisation requirements
Part 6	Results and Auditor conclusions

**MOCOPA<sup>®</sup> SECTION 3, OBLIGATIONS AND RIGHTS OF THE DISTRIBUTION BUSINESSES**

<b>Part 1 GENERAL OPERATIONAL LIAISON (SCH 5, PARA 3.3)</b>					
Question	Conformance rating				Evidence/Comments
	N/A	Std. not met	Std. met with observation	Std. met	
	1.1  Sch 5, Paragraph 3.3,  Who is the MOCOPA <sup>®</sup> Operators "point of contact" within the Distribution Business organisation?				
1.2  Sch 5, Paragraph 3.3,  Is this person in the correct position in the company to perform this role effectively?					
1.3  Sch 5, Paragraph 3.3,  Is there an organisation chart showing the operational link to the MOCOPA <sup>®</sup> Operators?					
<b>Part 1 Results</b>					
Non-Conf Raised Ref:			Observation Raised Ref:		
Comments					

**Part 2 MAINTAINED STATUS OF INFORMATION (SCH 5, PARA 3.5)**

Question	Conformance rating				Comments / Evidence
	N/A	Std. not met	Std. met with observation	Std. met	
<p>2.1</p> <p>Sch. 5. para 3.4</p> <p>Is there evidence that the Distribution Business is providing site specific information to MOCOPA<sup>®</sup> Operators within two business days?</p>					
<p>2.2</p> <p>Sch 5, Para 3.5</p> <p>Has the Distribution Business provided information for MOs? Has this information been uploaded to the MOCOPA<sup>®</sup> website or have all MOCOPA<sup>®</sup> Operators active in the company area been advised of this information?</p>					
<p>2.3</p> <p>If the Distribution Business does not use the MOCOPA<sup>®</sup> website for this, have the MOCOPA<sup>®</sup> Operators acknowledged receipt of this information within 10 business days?</p>					
<p>2.4</p> <p>Sch 5, Para 3.5</p> <p>Has information relating to any organisational or policy changes in accordance with Appendix 2.1 been updated annually?</p>					

<p>2.5</p> <p>Sch.5. para 3.5</p> <p>Is the Distribution Business using the Registration Authority (MOCOPA website) for circulating safety/ technical alerts to MOCOPA<sup>®</sup> Operators?</p>					
<p>2.6</p> <p>Sch 5, para 3.5</p> <p>If 'No' to above How are the relevant MOCOPA<sup>®</sup> Operators provided with this information?</p>					
<p>2.7</p> <p>Sch 5, para 3.5</p> <p>Is the register/list of MOCOPA<sup>®</sup> Operators operational in the Distribution Business area up to date?</p>					
<b>Part 2 Results</b>					
Non-Conf Raised Ref:			Observation Raised Ref:		
Comments					

Part 3 INFORMATION REQUIRED BY A MOCOPA <sup>®</sup> OPERATOR (SCH 5, PARA 4.2.1)					
Question	Conformance rating				Comments / Evidence
	N/A	Std. not met	Std. met with observation	Std. met	
3.1 Sch 5, para 4.2.1 What evidence is there that Distribution Business can comply with the 5 Business Day turn around with respect to notifying the MOCOPA <sup>®</sup> Operators of options exercised re access to substations and to Fuses?					
3.2 Sch 5, Section 4.2.2 What is the Distribution Business policy regarding MOCOPA <sup>®</sup> Operators energising supplies?					
3.3 Sch. 5 Para 4.3.4 Does the Distribution Business have a procedure to report meters found to be damaged to the MOCOPA <sup>®</sup> Operator?					
3.4 Does the Distribution Business have a procedure to log and action requests for service position repairs from MOCOPA <sup>®</sup> Operators?					
3.5 What is the Distribution Business target turn-around time for completing the repairs?					

<p>3.6</p> <p>What is the procedure to inform the MOCOPA<sup>®</sup> Operators when the repair is completed?</p>					
<p>3.7</p> <p>Sch 5, Para 5</p> <p>How does the Distribution Business liaise with MOCOPA<sup>®</sup> Operators for the provision of new supplies?</p>					
<p>3.8</p> <p>Is there evidence that the Distribution Business complies with section 5. New meter positions? In particular does the Distribution Business provide fuse rating information and any specific requirements for energising new supplies? (Such as requirements for connecting of tails at new meter positions)</p>					
<p>3.9</p> <p>At installations at which the Distribution Business provides an earth terminal for use by the customer, is it the Distribution Business' policy to make this earth terminal accessible to the customer or contractor?"</p>					
<p>3.10</p> <p>Sch 5, Para 6.32</p> <p>What are the Distribution Business processes for communicating with MOCOPA<sup>®</sup> Operators when there is a physical change to the meter position or a CT / VT ratio is changed?</p>					

3.11 Sch 5, Para 6.32 Is there evidence that the above is being complied with at least 15 days prior to the work commencing?					
Part 3 Results					
Non-Conf Raised Ref:			Observation Raised Ref:		
Comments					

Part 4 MISCELLANEOUS TECHNICAL ISSUES					
Question	Conformance rating				Comments / Evidence
	N/A	Std. not met	Std. met with observation	Std. met	
<p>4.1</p> <p>Sch.5. Para 3.4</p> <p>Does the Distribution Business have a list of the CT and VT errors for all the CTs and VTs connected on its' system?</p>					
<p>4.2</p> <p>Sch. 5. Appendix 2.2</p> <p>Does the Distribution Business issue CT /VT test certificates and other site-specific information?</p>					
<p>4.3</p> <p>Sch.5. Para 3.6</p> <p>Does the Distribution Business properly reseal MOCOPA<sup>®</sup> Operator equipment when it has carried out work on it?</p>					
<p>4.4</p> <p>Sch 5 Para 3.7</p> <p>Does the Distribution Business have a process for the repair of reported defects or hazards, including a process for the reporting of the repair to the MOCOPA<sup>®</sup> Operator?</p>					

4.5					
Sch. 5. Para 4.1.2 (B)					
Does the Distribution Business provide adequate test and connection facilities for the MOCOPA <sup>®</sup> Operators at its' metered sites?					
4.6					
Does the Distribution Business have a list of the Sealing Plier IDs available to it?					
4.7					
Sch. 5. Para 1.4.3 Appendix 8.					
Does the Distribution Business sealing practices comply with the requirements of Sch. 5. Appendix 8?					
4.8					
Does the Distribution Business have a register of the sealing pliers issued to each member of staff, including all operatives and sub-contractors?					
4.9					
Sch.5, Appendix 11.7					
Does the Distribution Business use BEBS 12 ferrule markings on CT/VT operated metering secondary wiring and conform to Appendix 11?					
<b>Part 4 Results</b>					
Non-Conf Raised Ref:			Observation Raised Ref:		
Comments					

**Part 5 AUTHORISATION REQUIREMENTS**

Question	Conformance rating				Comments / Evidence
	N/A	Std. not met	Std. met with observation	Std. met	
5.1  Sch 5. Para 2.2.3  Does the Distribution Business require MOCOPA <sup>®</sup> Operator operatives to be assessed by the Distribution Business before they can work on service positions in the Distribution Business area?					
5.2  If yes to above what is the frequency of re-assessment?					
5.3  Does the Distribution Business have adequate procedures in place to provide the training for MOCOPA <sup>®</sup> Operator staff to comply with the above?					
5.4  Does the Distribution Business charge for this training?					
5.5  Sch 5 Para 2.2.4  Does the Distribution Business provide copies of its' Distribution Business safety rules to all MOCOPA <sup>®</sup> Operator staff authorised to work in its' area?					

**Part 5 Results**

Non-Conf Raised Ref:		Observation Raised Ref:	
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Comments	
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**Part 6 RESULTS AND AUDITORS CONCLUSIONS**

<p>Total number of Non Conformities:</p> <p>Total number of Observations:</p>  <p style="text-align: center;">Comments:</p>   <p>Can the Distribution Business continue to meet its' obligations to MOCOPA<sup>®</sup> Operators while corrective action is taken?</p> <p>Should the next annual audit be brought forward?</p> <p>Are there any Non Conformities of a nature so as to require an immediate close out?</p> <p>Can the audit be closed out at the time of the next annual audit?</p>	
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Any other comments

**Auditor's Signature:**

**Date:**

## **GUIDANCE NOTES “A” – SAFE WORKING PRACTICE**

### **A1 Health & Safety Regulations**

A1.1 It is important that auditors understand that these guidance notes are intended to complement but not replace or override any part of legislation pertaining to Health & Safety. Auditors should be aware of and familiar with:

A1.1.1 Health & Safety at Work Act 1974;

A1.1.2 SI 1990/1380 Health & Safety (Training for Employment) Regulations;

A1.1.3 SI 1989/635 Electricity at Work Regulations;

A.1.1.4 SI 1992/2051 The Management of Health & Safety at Work Regulations.

### **A2 Control of Danger**

A2.1 Reference should be made to Regulation 13 of the Electricity at Work Regulations.

A2.2 Auditors should satisfy themselves that before operatives commence testing metering installations they have direct control of the electricity supply to those metering systems.

A2.3 In the case of VT/CT metering, the operative should have removed the VT secondary winding fuses from each phase and should have shorted every CT secondary winding at the test terminal block before making or breaking any connections to the metering system.

A2.4 For whole-current metering, the operative should have removed the fuse from each phase of the Distribution Company cut-out before making or breaking any connection to the metering system.

### **A3 Working On or Near Live Conductors**

A3.1 Reference should be made to Regulation 14 of the Electricity at Work Regulations.

A3.2 It should not be necessary for any operator to work on a metering system that has not been made 'dead'.

A3.3 In certain circumstances, operatives may be working near live conductors that cannot be made 'dead'. In these cases operatives should take suitable precautions, such as shrouding of live conductors, so as to prevent injury.

### **A4 Working Space, Access and Lighting**

A4.1 Reference should be made to Regulation 15 of the Electricity at Work Regulations.

A4.2 Before commencing work on metering installations, operatives should ensure that there is sufficient access, working space and lighting for safe working and to prevent injury.

### **A5 Operatives to be Competent so as to Prevent Danger**

A5.1 Reference should be made to Regulation 16 of the Electricity at Work Regulations.

A5.2 Operatives should have knowledge of electricity and experience of electrical work; an adequate understanding of the metering system being tested and the hazards which may arise carrying out this work and the ability to recognise where a metering system is safe to be worked on.

## **GUIDANCE NOTES “B” – TECHNICAL COMPETENCY**

B1 Minimum Criteria for Technical Competency

B1.1 The degree of technical competency of operatives employed, either directly or indirectly by MOCOPA<sup>®</sup> Operator will depend on the type of work they are employed to carry out. However, all operatives should be adequately trained to be able to comply with the Electricity at Work Regulations.

B2 Technical

B2.1 Operatives employed to supervise the work of other operatives to test metering systems should have an adequate knowledge of:-

B2.2.1 Current transformers - an understanding of:

B2.2.1.1 ratio and polarity;

B2.2.1.2 burden, ratio and phase angle errors;

B2.2.1.3 methods of connection and the effect of open circuiting a CT secondary winding.

B2.2.2 Voltage transformers - an understanding of:

B2.2.2.1 ratio and polarity;

B2.2.2.2 burden, ratio and phase angle errors;

B2.2.3 methods of connection for metering systems.

B2.2.4 Electrical installation - an understanding of:

B2.2.4.1 Insulation resistance and continuity;

B2.2.4.2 Earth leakage circuit breakers;

B2.2.4.3 Earthing and earthing system;

B2.2.4.4 Electrical wiring practice specified in British Standards insofar as they apply to work being undertaken;

B2.2.4.5 Wiring diagrams for metering systems.

B2.2.5 Meters - an understanding of:

B2.2.5.1 The measurement of active, reactive and apparent power;

B2.2.5.2 Import and export meters;

B2.2.5.3 The use of two and three-element polyphase meters;

B2.2.5.4 Single phase, 2 or 3-wire, 2-phase 3-wire, 3-phase 3 and 4-wire systems.

B2.2.6 Testing and Test Equipment - an understanding of:

B2.2.6.1 phase and line voltage measurements;

B2.2.6.2 determining phase rotation;

B2.2.6.3 methods of determining insulation resistance, earth loop impedance, voltage polarity;

B2.2.6.4 measurement of phase currents;

B2.2.6.5 methods of verifying correct connection of VTs and CTs;

B2.2.6.6 methods of carrying out on-site active energy accuracy tests;

- B2.2.6.7 use of appropriate test equipment and application of test equipment errors;
- B2.2.6.8 traceability of measurement and the need for periodic re-calibration of test equipment;
- B2.2.6.9 meter and cable burden calculations;
- B2.2.6.10 application of CT and VT errors to meter errors.

## **GUIDANCE NOTES “C” – QUALITY OF WORK**

- C1 All work undertaken by operatives must be of a sufficiently high standard so as to satisfy all Health & Safety legislation and Guidance Notes A, B and D of this manual.
- C2 Meters, meter panels or enclosures and ancillary equipment must be adequately fixed to permanent and suitable walls, frames or other constructions. Fixing devices must be suitable and adequate for the size and weight of equipment and type of wall, frame etc on which the metering system is to be fixed.
- C3 Metering equipment should be fitted, wherever reasonably practical, in a position that future reading, testing or replacement of metering equipment can be carried out safely and easily.

## **GUIDANCE NOTES “D” – INSTALLATION WORK**

### **Safe Metering Systems**

- D1 Reference should be made to Regulations 4, 5, 6, 7 and 8 of the Electricity at Work Regulations.
- D2 Metering systems shall have been installed, so far as it is reasonably practical, to prevent danger.
- D3 Installed meters shall be appropriate for the supply in terms of accuracy, tariff, type of supply and the maximum load to be measured.
- D4 After disconnection and before restoring a supply, protective devices should be checked by operatives to determine that they are suitable for any fault current likely to arise if a fault condition occurs.
- D5 Installed meter and consumer tails should be of adequate size for type of supply and load.
- D6 The metering equipment is adequately protected from mechanical danger, the effects of weather, wet or corrosive conditions and any flammable or explosive substances.
- D7 That all cables and conductors covered with insulating materials and have been placed, so far as reasonably practical, to prevent danger.
- D8 All connections should be properly made and tightly secured.

## **GUIDANCE NOTES “E” – TESTING OF METERING SYSTEMS**

- E1 Auditors must ensure that appropriate and correctly calibrated test equipment is used by the MOCOPA<sup>®</sup> Operator for any testing of metering systems.
- E2 On-site visual and electrical tests should include, if possible, the following:
- Verification of VT and CT ratios, where appropriate.
  - Voltage measurement.
  - Current measurement.
  - Energy measurement.
  - Determination of phase rotation, where appropriate.
  - Confirmation that metering connections are correct.
  - Confirmation that VT and CT burdens within rated range. (Guidance on VT and CT burdens is given in Appendix 11 and in Guidance Notes “G” – Useful Formulae)
  - Meter accuracy tests at one or more load points;
  - Downloading or displaying of meter serial number and confirming, where appropriate, that the meter serial number on plate matches;
  - Insulation and Earthing
  - Appropriate equipment and software, where necessary, to programme meter to the appropriate tariff for supply.

## **GUIDANCE NOTES “F” – SEALING**

- F1 After installation, commissioning or testing of metering system has been completed; all metering equipment, test terminal blocks, VT fuses and cut-outs should be sealed in accordance with the MOCOPA<sup>®</sup> (Appendix 8) sealing requirements.
- F2 Seals should be marked in accordance with the MOCOPA<sup>®</sup> (Appendix 8) to show Meter Operatives company and the identity of operative who was responsible for sealing on site.

**GUIDANCE NOTES “G” – USEFUL FORMULAE**

$$kW = \frac{\text{Total advance of kWh register} \times 60}{\text{Minutes (period of advance)}} = kW$$

or

from pulse output (Wh/imp) =

$$\frac{\text{No imp}}{\text{time(sec)}} \times \frac{3600}{1000} \times \text{Meter Constant} \times \text{CT ratio} \times \text{VT ratio} = kW$$

or from pulse output (imp/Wh) =

$$\frac{\text{No imp}}{\text{time(sec)}} \times \frac{3600}{1000} \times \frac{\text{CT ratio}}{\text{Meter Constant}} \times \text{VT ratio} = kW$$

$$kVAr = \frac{\text{Total advance of kVArh register} \times 60}{\text{Minutes}} = kVAr$$

or, if available from pulse output (kVArh/imp) =

$$\frac{\text{No imp}}{\text{time(sec)}} \times \frac{3600}{1000} \times \frac{\text{Meter Constant}}{\text{Constant}} \times \text{CT ratio} \times \text{VT ratio} = kVAr$$

or, if available from pulse output (imp/Wh) =

$$\frac{\text{No imp}}{\text{time(sec)}} \times \frac{3600}{1000} \times \frac{\text{CT ratio}}{\text{Meter Constant}} \times \text{VT ratio} = kVAr$$

$$kVA = \sqrt{(kW^2 + kVAr^2)} = kVA$$

or

$$LV \frac{\text{Volts} \times \text{Primary} (I_r + I_y + I_b)}{1000} = kVA$$

or

$$HV \frac{\sqrt{3} \times \text{line volts} \times \text{primary line current} (I_r + I_b)}{2} = kVA$$

$$pf = \frac{kW}{kVA} = \cos \theta$$

or

$$pf = \frac{1}{\sqrt{1 + \frac{kVAr^2}{kW^2}}} = \frac{kW \cos \theta}{\sqrt{kW^2 + kVAr^2}}$$

## CT BURDENS

Max burden assumed:-

- 1) For Ferraris 1.0VA/element
- 2) For Electronic 0.5VA/element

Examples given below based on:-

- 1) Max current of 6A
- 2) Feed and return cable for cable and total burden 0.5VA element

Example 1: 1 x 5-6A CT operated meter, max meter burden 1 x 0.5VA

Typical Meter Burden (VA)	Cable Size (sq mm)	Voltage Drop (mV/A/m)	Cable Burden Max (VA/m)	Total Burden at 15m (VA)
0.5	2.5	18	0.216	3.74
0.5	4	11	0.132	2.48

Example 2: 2 x 5-6A CT Operated meter, max meter burden 2 x 0.5VA

Typical Meter Burden (VA)	Cable Size (sq mm)	Voltage Drop (mV/A/m)	Cable Burden Max (VA/m)	Total Burden at 15m (VA)
1	2.5	18	0.216	4.24
1	4	11	0.132	2.98
1	6	7.3	0.0876	2.314

Example 3: 2 x 5-6A CT Operated meter, meter burdens 0.5VA + 1VA

Typical Meter Burden (VA)	Cable Size (sq mm)	Voltage Drop (mV/A/m)	Cable Burden Max (VA/m)	Total Burden at 15m (VA)
1.5	2.5	18	0.216	4.74
1.5	4	11	0.132	3.48
1.5	6	7.3	0.0876	2.814
1.5	10	4.4	0.0528	2.292

Example 4: 2 x 5-6A CT Operated meter, max burdens 2 x 1VA

Typical Meter Burden (VA)	Cable Size (sq mm)	Voltage Drop (mV/A/m)	Cable Burden Max (VA/m)	Total Burden at 15m (VA)
2	2.5	18	0.216	5.24
2	4	11	0.132	3.98
2	6	7.3	0.0876	3.314
2	10	4.4	0.0528	2.792
2	16	2.8	0.0336	2.504

## VT BURDENS

Max burden assumed:-

- 1) For Ferraris 10.0VA/element
- 2) For Aux apparatus assume 10.0VA/phase

Examples for cable and total burden calculated for both feed and return cables.

Example 1: 1 x 110V VT Operated meter, max meter burden 1 x 10VA

Typical Meter Burden (VA)	Cable Size (sq mm)	Voltage drop (mV/A/m)	Cable burden max (VA/m)	Total burden at 15m (VA)
10	1.5	29	0.01	10.08
10	2.5	18	0.00	10.05

Example 2: 2 x 110V VT Operated meter, max meter burden 2 x 10VA

Typical Meter Burden (VA)	Cable Size (sq mm)	Voltage drop (mV/A/m)	Cable burden max (VA/m)	Total burden at 15m (VA)
20	1.5	29	0.01	20.16
20	2.5	18	0.01	20.10
20	4	11	0.00	20.06

Example 3: 2 x 110V VT Operated meter + aux apparatus = 3 x 10VA burden

Typical Meter Burden (VA)	Cable Size (sq mm)	Voltage drop (mV/A/m)	Cable burden max (VA/m)	Total burden at 15m (VA)
30	1.5	29	0.02	30.24
30	2.5	18	0.01	30.15
30	4	11	0.01	30.09