

CALAMBA WATER DISTRICT

TITLE: CALIBRATION PROCESS



DOCUMENT NO. CWD-MOT-002

REVISION NO. 00

EFFECTIVE DATE: DEC 28, 2016

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NAME

SIGNATURE

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1.0 PURPOSE

- 1.1 To effectively establish and implement a documented information for proper maintenance of Equipment and proper calibration of Measuring and Test Equipment.
- 1.2 To ensure that equipment's are in good and running condition when needed and measuring and test equipment's gives the correct and accurate data results.
- 1.3 Only CWD accredited calibration center shall be utilized for this purpose.
- 1.4 To provide confidence in the validity of measurement results when measurement traceability is a requirement as an essential part, measuring equipment shall be:
 - a) calibrated or verified, or both, at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; when no such standards exist, the basis used for calibration or verification shall be retained as documented information;
 - b) identified in order to determine their status;
 - c) safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results.
- 1.5 Determine if the validity of previous measurement results has been adversely affected when measuring equipment is found to be unfit for its intended purpose, and shall take appropriate action as necessary.

2.0 SCOPE

- 2.1 This documented information applies to all equipment's and measuring and test equipment's being used by CWD in the implementation of projects which includes equipment's and measuring and test equipment's owned by the Calamba Water District.

3.0 RESPONSIBILITY

- 3.1 In the course of internal calibration control, assigned personnel shall refer to applicable calibration report or certificates and documented information as guide to effectively calibration controls.
- 3.2 The Motorpool head and his designee shall constantly observe the policies and handling and controls outsource calibration matters.
- 3.3 The Motorpool head in coordination with Admin/ ASD Manager is responsible for the proper implementation of this documented information and keeping of the required maintenance records/certificates.
- 3.4 The Motorpool Head is responsible for the proper scheduling of maintenance of equipment's and calibration of measuring & test equipment's using an accredited Calibration Laboratories in coordination with the Administrative Services Division.
- 3.5 The Motorpool head is responsible for the regular audit of equipment's maintenance & Measuring and Test Equipment's calibration stickers and/or records being used by Operations Section.
- 3.6 All equipment's being used by Operations owned shall undergo regular calibration.
- 3.7 The Motorpool head shall generate an Annual Calibration Schedule of all equipment's used by CWD operation.


4.0 DEFINITION OF TERMS

- 4.1 Calibration – A set of operations which is establish under specified conditions, the relationship between values represented by a reference material and the corresponding values of a quantity realized by a reference standard.


Notes: The result of calibration permits the estimation of errors of indication of the measuring instrument, measuring system or the assignment of values to mark on subject to judgment scales. The result of calibration may be recorded in a document, sometimes called a calibration certificate or a calibration report.

- 4.2 Calibration Method - A defined technical documented information for performing calibration which is, recognized and practice by an accredited calibration services.

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- 4.3 Calibration services - A place and calibration subcontractor where calibration is being performed.
- 4.4 Reference Standard - Simply refer to as a standard, generally of a higher metrological quality.
- 4.5 Traceability - The property of a result of a measurement whereby it can be related appropriate standards, generally international or national standards, through an unbroken chain of comparisons.
- 4.6 User - Usually refer to as the personnel using the equipment.
- 4.7 Calibration Technician - A trained staff of calibration section who is the certified Personnel to conduct calibration works.
- 4.8 Verification - Confirmation by examination and condition of evidence that specified requirements have been met.
- 4.9 Requirement - A translation of the needs into a set of individual quantified or descriptive specifications for the characteristics of an entity in order to enable its realization and examination.
- 4.10 Equipment Maintenance – refers to the process or activities of maintaining construction equipment's in good running condition.

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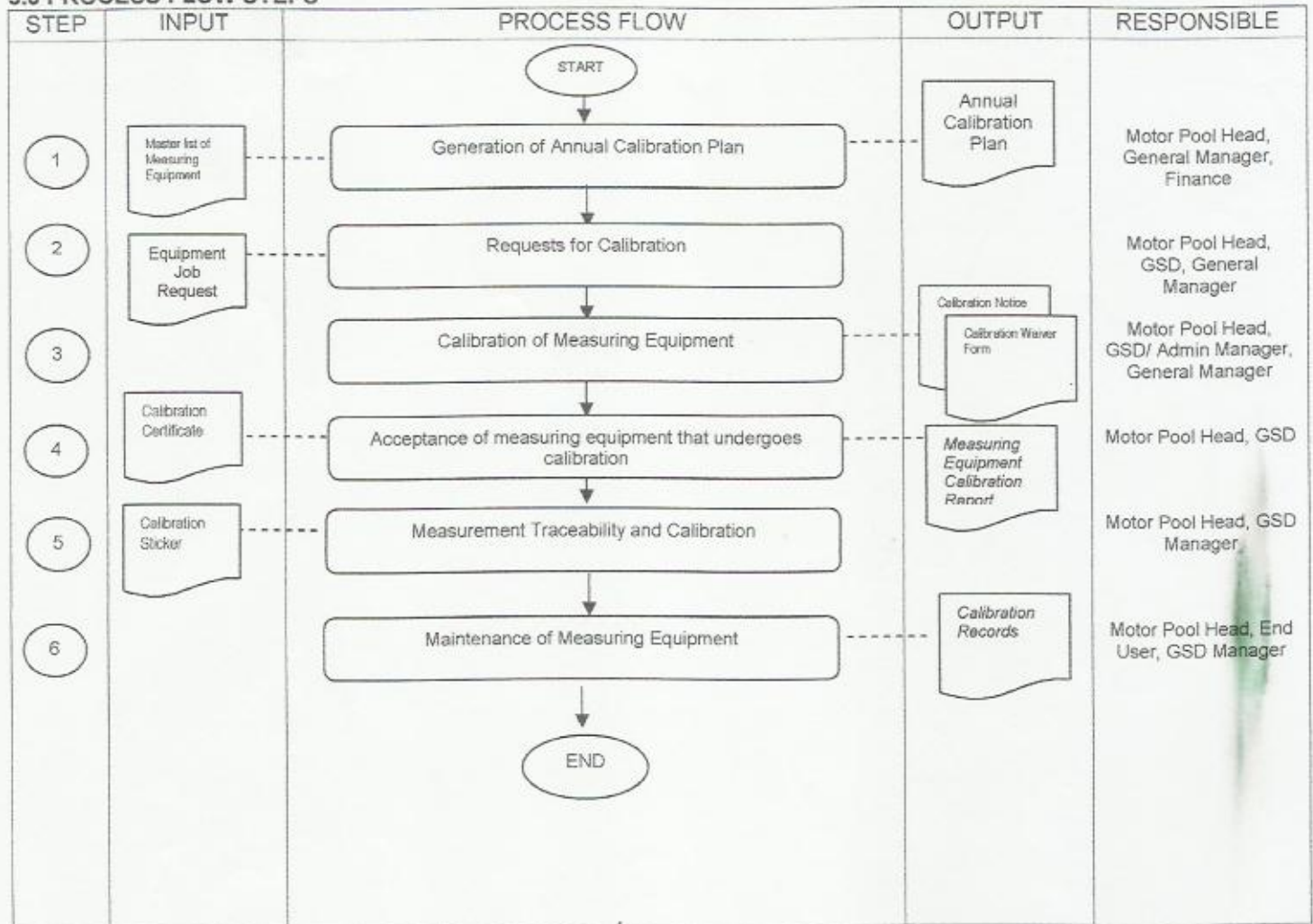
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5.0 PROCESS FLOW STEPS



6.0 PROCESS DETAILS

6.1 Generation of Annual Calibration Plan or as per frequency schedule:

- 6.1.1 The Motorpool Head makes a master list of all equipment's (operational and non-operational) as well as measuring equipment and generate Annual Calibration Plan.
- 6.1.2 Forwards documented Annual Calibration Plan to General Manager for review and approval and for funding purposes and costing estimation by Accounting for budget releasing.

6.2 Requests for Calibration

- 6.2.1 Review the Annual Calibration Plan Schedule if any Measuring equipment is for due calibration.
- 6.2.2 The Motor Pool Head shall generate *Equipment Job Request Form*
- 6.2.3 Forward *Equipment Job Request Form* to Purchasing section for quotation.
- 6.2.4 *Equipment Job Request Form* with quotation or Abstract of Canvass is to be submitted to General Manager for review and approval.
- 6.2.5 Once approved the Purchasing head shall now generate Purchase Order for the calibration of measuring and test equipment.
- 6.2.6 The approved Purchase Order shall send to accredited calibration service provider.

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6.3 Calibration of Measuring Equipment

- 6.3.1 Once the Annual Calibration Plan has been reviewed and Purchase Order is approved; the measuring equipment is ready for calibration.
- 6.3.2 Review and refer to the Annual Calibration Plan for due date and check the equipment monitoring log sheet for reference.
- 6.3.3 Forward *Calibration Notice* to GSD Manager to inform that the measuring equipment is due for calibration and need to pull-out to the operation of project.
- 6.3.4 If the measuring equipment is still in use and not possible to be pull-out to the operation of project the GSD Manager shall generate *Measuring Equipment Calibration Waiver Form* and submit to Motor pool Head for review and for re-scheduling.
- 6.3.5 Forward the Equipment Job Request Form to the Administrative Department Manager for review and approval.
 - 6.3.5.1 If the request is disapproved; review and resubmit request and re-schedule the Calibration schedule.
 - 6.3.5.2 If the request is approved the Purchasing shall generate Purchase Order for the equipment calibration
- 6.3.6 Once the Measuring equipment is ready for calibration the GSD Manager shall now turn over the measuring equipment to Motorpool.
- 6.3.7 The Motor pool head shall send the measuring equipment to calibration service center.
- 6.3.8 Conduct Calibration to the scheduled equipment
- 6.3.9 Check the results of calibration done to the equipment.
 - 6.3.9.1 If the applied calibration the equipment is not okay re-conduct preventive maintenance.
 - 6.3.9.2 If the applied calibration to the equipment is okay the Motorpool Head shall generate Calibration Report or Calibration Certificate.

6.4 Acceptance of measuring equipment that undergoes calibration.

- 6.4.1 The measuring equipment that undergoes calibration shall inspect and test by Motorpool Head.
- 6.4.2 If accepted, the Motor Pool Head shall inform the Purchasing section about the result of calibration and ready for payment.
- 6.4.3 After the calibration; the Motorpool Head shall update the *Measuring Equipment Calibration Report*

6.5 Measurement Traceability and Calibration

- 6.5.1 All measuring and testing equipment having an effect on the operation shall be calibrated and or verified before being put into process. The calibration services shall have an established program for the calibration and verification of its measuring and test equipment.
- 6.5.2 The overall program of calibration and or verification of equipment shall be designed and operated so to ensure that whenever applicable, measurements made by the outsource calibration services laboratory are traceable to national standards of measurement where available. Calibration certificates shall whenever applicable indicate the traceability to national standards of measurement.
- 6.5.3 Review Annual Calibration Plan; it shall contain the list of equipment with calibration expiration date.

6.6 Maintenance of Measuring Equipment

- 6.6.1 All equipment shall be properly maintained. Equipment which has been subjected to mishandling or which gives suspect results or otherwise found to be defective, shall be taken out of service, clearly identified and stored at specified place until it has been repaired.
- 6.6.2 Equipment shall be labeled marked or otherwise identified to indicate its equipment status.
- 6.6.3 All non-operational Measuring Equipment are required to calibrate with the span of three (3) years as it's frequency for maintenance purposes.
- 6.6.4 If the measuring equipment due date comes without conducting calibration:
 - 6.6.4.1 Motor Pool Head shall tag the equipment "DO NOT USE DUE FOR CALIBRATION" do not use until calibrated.
 - 6.6.4.2 Issue Report to the user and General Services Division Manager to notify them about the status of equipment.




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6.6.5 Records shall be maintained on Equipment History Record.

7.0 RECORDS RETENTION

- 7.1 Active Retention – indefinite retention period for current or active documents for both electronic and hardcopy/Controlled Copy.
- 7.2 Inactive/Archival Retention – shall be kept for active one (1) year or may request for an extension as deemed necessary (hardcopy); for electronic/soft file; it shall be kept in a separate folder named "Obsolete Copy".

8.0 REFERENCES

- 8.2 ISO 9001:2015 QMS Standard
- 8.3 QMS Manual (if with pre-existing/preferred)
- 8.4 Statutory and Regulatory Requirements

9.0 ATTACHMENTS

- 9.1 Master List of Measuring Equipment
- 9.2 Annual Calibration Plan
- 9.3 Calibration/Preventive Maintenance Notice
- 9.4 Calibration Form
- 9.5 Measuring Equipment Calibration Report


10.0 DISTRIBUTION LIST

Note 1: Select Relevant Recipient to Appear in below List.z

COPY HOLDER NO.	DEPT/SEC./COPY HOLDER
1a	General Manager
2	IQA
3	Commercial
4	Engineering
5	Adm Purchasing
6	Adm Warehouse
7	Adm Motor pool
8	Laboratory (Quality Control Division)
9	Adm HRD
10	Finance
11	Production

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