

Calibration and control of measuring / testing equipments

1.0 Purpose

The purpose of this procedure is to define a system to ensure calibration of monitoring and measuring equipments used in the construction process and also in testing devices to assess its continuing suitability, adequacy and effectiveness.

1.1 Application

This procedure is applicable to the measuring devices / equipments used for inspection / measurement of works apart from testing devices / equipments used for ascertaining the suitability of construction materials generally used for construction in all the projects of KSPHC.

2.0 Responsibility

As the measuring devices / equipments used for measurement of works are brought by Contractors hence it is the overall responsibility of the Contractors to get the same calibrated. Ensuring calibration of monitoring and measuring equipments used in the construction process and to assess its continuing suitability, adequacy and effectiveness rests with the concerned Assistant Executive Engineers. However the quality control division shall ensure the testing equipments used in their laboratory for testing of various construction materials are calibrated to ensure its adequacy and effectiveness.

3.0 Terms and definitions

- a) **Effectiveness** – Extent to which planned activities are realised and planned results achieved.
- b) **Efficiency** – Relationship between the results achieved and the resources used.
- c) **Quality management system--** Management system to direct and control an organisation with regard to quality.
- d) **Review-** Activity undertaken to determine the suitability, adequacy and effectiveness of the subject matter to achieve established objectives.
- e) **Top Management** – Person or group of people who direct and control an organisation at the highest level.

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4.0 Procedures

Sl. No	Product parameter	Details required	Responsibility to provide details	Frequency
1	Identification of measuring / testing devices	a) Measuring / testing devices needed for carrying out the necessary measuring / quality checks shall be identified. b) It shall be decided as to : I) Instruments, which shall be made available by the corporation. II) Instruments which should be provided by the contractors. III) List of outside labs, which can under take calibration of equipments.	EE / EE(QC) EE EE EE	Yearly
2	List of instruments owned by corporation	a) Lists of instruments maintained at division, sub – division and sections shall be maintained and the adequacy / accuracy and correctness of these shall be ensured. b) Each instrument shall be marked with a distinct code. The code shall be suitably marked on the instrument. c) Frequency of calibration of each type of instrument shall be decided based on its criticality and usage. d) Agency / Agencies for calibration of instruments shall be identified	EE / EE(QC) EE EE EE	Yearly Yearly Yearly Yearly

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The concerned JE/AE/AEE shall record the details in a format as given and maintain it.

Sl. No	Name of the Record	Authorizing Personnel	Custodian of record	Retention Time
1	Measuring / testing devices Identified	AEE	JE/AE	3 years
2	List of instruments owned by corporation	AEE	JE/AE	3 years
3	Instruments to be maintained by contractors	AEE	JE/AE	3 years
4	Outside labs for calibrations	EE	AEE/AE/JE	3 years
5	Calibration, maintenance and use of instruments records	AEE	JE/AE	3 years

6.0 Reference

- a) ISO 9001: 2000 Clause Number 7.6
- b) Quality Manual Clause Number 7.6

7.0 Revision "0" – First issue.

8.0 Distribution of procedure

Chief Coordinator-QMS shall issue this procedure to all the functional heads.

* Approved by	Top Management Committee
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* Board of Directors of KSPHC in its 107th meeting held on 04-12-2004 vide resolution No. 2004 / 047 has constituted a Top Management Committee consisting of CMD, ED, CE and FA with MR and CC as co-opted members. Further the Board has authorised CMD to approve and issue the QSPs after review by the Top Management Committee.