



Standard Operating Instruction – WWEMS-0100.016 Name: WWTD External Calibrations	Corresponding Requirements: EMS Manual: 7-1 ISO Standard: 4.5.1 NBP Element: 13
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WWTD External Calibrations Standard Operating Instruction

1.0 Purpose

- 1.1 To help assure the accuracy of data, instrumentation must be properly calibrated and checked. This procedure, along with the procedures for individual activities, details proper equipment calibration. Specific internal calibration procedures for each WWTP and Pump Station are identified in their respective document control matrixes (WLC-0101.000, WLC-0101.100, WCR-0101.100, WCR-0101.000, WPR-0101.000, WRF-0101.000, WFM-0101.100). This procedure provides for external calibration of identified pieces of equipment used in the monitoring and measuring of significant environmental aspects and impacts within the WWTD.
- 1.2 External calibrations required in the laboratories have been identified and addressed in the respective Laboratory Checks and Calibrations Procedure (WLC-0100.103, WCR-0100.103).

2.0 Associated Reference Material

- 2.1 Long Creek WWTP Contracted Equipment List – WWEMS-0101.016A
- 2.2 Crowders Creek WWTP Contracted Equipment List – WWEMS-0101.016B
- 2.3 Pretreatment Contracted Equipment List – WWEMS-0101.016C
- 2.4 Resource Recovery Farm Contracted Equipment List – WWEMS-0101.016D
- 2.5 Pump Stations Contracted Equipment List – WWEMS-0101.016E
- 2.6 Long Creek Laboratory Checks and Calibrations – WLC-0100.103
- 2.7 Crowders Creek Laboratory Checks and Calibrations – WCR-0100.103
- 2.8 Professional Services Contract(s) with calibration company(ies) – WWTD Files
- 2.9 City of Gastonia Environmental Policy
- 2.10 City of Gastonia Environmental Management System Manual
- 2.11 National Biosolids Partnership Manual of Good Practice
- 2.12 National Biosolids Partnership EMS Elements
- 2.13 ISO 14001 Standard

3.0 Associated Equipment

- 3.1 See Contracted Equipment Lists for equipment identification – WWEMS-0101.016A - E

4.0 Procedure

- 4.1 The WWTD contracts with companies as needed to perform calibrations of identified pieces of equipment within the Division per the Contracted Equipment Lists

- (WWEMS-0101.016A, WWEMS-0101.016B, WWEMS-0101.16C, WWEMS-0101.016D, WWEMS-0101.016E).
- 4.2 It is the responsibility of the Contractor to ensure personnel performing calibrations is properly trained on all applicable pieces of equipment.
 - 4.3 The ORC, or his designee, at each WWTP, Pretreatment Industrial Chemists, Biosolids ORC, and Pump Station ORC are responsible for identification of calibration needs in their respective areas and listing that equipment on the appropriate Contracted Equipment List (WWEMS-0101.016A, WWEMS-0101.016B, WWEMS-0101.016C, WWEMS-0101.016D, WWEMS-0101.016E).
 - 4.3.1 If a piece of equipment is identified after the contract has been established the ORC, or his designee, Pretreatment Industrial Chemists, Biosolids ORC, or Pump Station ORC must obtain approval from the Division Manager WWT, (or as appropriate the Assistant Division Manager - Operations, Assistant Division Manager - Compliance or Superintendent – Facility Maintenance) and inform the Contractor of the additional needs.
 - 4.4 The Contracted Equipment list is required to include the equipment location, name, make, frequency of required calibrations, and company currently performing calibrations. Other information may be listed on each equipment list as deemed necessary by the respective area supervisor or ORC.
 - 4.5 The WWTP ORC, Pretreatment Industrial Chemists, Biosolids ORC and Pump Station ORC are responsible for ensuring that the required calibration frequencies are met.
 - 4.5.1 If calibrations are not performed per the required frequency, the responsible party as noted above is responsible for contacting the Contractor to ensure calibration of the piece of equipment and to ensure that the calibration is performed per the required frequency in the future.
 - 4.6 Copies of calibration records and applicable contracts will be maintained by the respective responsible parties identified above in their respective area and will be readily accessible for review by operations staff and auditors.

5.0 Environmental Impacts

- 5.1 All environmental aspects for effluent parameters and biosolids quality could be affected by this procedure.
- 5.2 This procedure helps assure that accurate measurements taken for process control, SIU compliance and permit requirements for NPDES, Land Application and Collection System. Accurate data is critical to assuring optimum performance of the wastewater treatment process and to minimize negative impacts on the receiving stream or land application sites.
- 5.3 Not following this procedure could allow inaccurate data to be reported which would lead to improper process control and SIU permitting decisions being made. This could result in poorer quality effluent or biosolids and sanitary sewer overflows (SSOs), which could adversely affect the quality of the receiving waters or land.

6.0 Revision History:

Revision		C/PAR #	Reason for Revision	Description of Revision
Date	#			
5/20/02	1	EMS-0074	External Auditor	Removal of Deviations statement from Level II procedures
5/20/02	1	EMS-0084	C/PAR	Added a modification history section
4/8/03	0	100	C/PAR	Changed EMS procedure to WWEMS procedure. NO RETRAINING REQUIRED
8/18/03	1		Form #s changed	Changed Forms from EMS to WWEMS. NO RETRAINING REQUIRED
9/8/04	2	331	C/PAR	Added Facility Maintenance, Pump Station Contracted Equipment List and Collection System Permit information.
9/8/04	2	EMS-0116	The WWTD committed to the National Biosolids Partnership and the NBP requirements need to be added to applicable EMS documents.	Compared to Manual of Good Practice and added NBP references.