



Verification	Originator	Approved	Issued
Initials	TH	ST	ST
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## TITLE: COFL-GTL-EP-4.5.1-1 Monitoring & Measurement Procedure

<b>Person responsible:</b>	<b>GTL Team</b>		
<b>Area of application:</b>	George T. Lohmeyer Regional Wastewater Treatment Plant (GTL)		
<b>Document location:</b>	www.fortlauderdale.gov/ESMS		
<b>Revisions</b>			
	<b>Rev. No.</b>	<b>Date</b>	<b>Description</b>
	001		
<b>Recurring action it ESMS</b>			
<b>Activity</b>	<b>Responsibility</b>	<b>Frequency</b>	
1. Review the overall ESMS performance, and specifically the Objective, Targets and Programs	ESMS Core Team	Quarterly	
2. Review compliance with environmental regulations and policies.	Regional Wastewater Facility Manager	Annually	
3. Identify and review those Work Instructions which address activities and operations associated with monitoring and measurement. Modify existing or develop new Work Instructions as required.	Regional Wastewater Facility Manager	Annually	
4. Document calibration records.	Instrument Technician	Annually	
5. Complete Monitoring and Measuring Annual Checklist	Regional Wastewater Facility Manager	Annually	



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## 1.0 Purpose

- 1.1 **Objectives, Targets and Programs** - This procedure describes the method for establishing, reviewing, and maintaining documents to *Monitor and Measure* the progress towards meeting the *Objectives, Targets and Programs* of GTL.
- 1.2 **Operational Control** - This procedure addresses the requirements for *Monitoring and Measurement* to record information for tracking conformance with *Operational Controls*, Standard Operating Procedures (SOP).
- 1.3 **Calibration** – This procedure addresses the requirements that monitoring equipment must be calibrated and records of this maintained.
- 1.4 **ESMS Performance Tracking** - This procedure ensures that the necessary information for making informed decisions regarding the environmental performance tracking of City of Fort Lauderdale is collected and recorded.

## 2.0 Scope

- 2.1 This procedure is responsive to element 4.5.1, *Monitoring and Measurement*, of the ISO 14001:2004 standard and covers operations of GTL.
- 2.2 The scope of establishing and documenting the *Monitoring and Measurement* requirements of GTL are directly related to the significant environmental aspects, operations and activities which have the potential to impact the environment. The identified significant aspects are documented and controlled in **COFL-GTL-EP-4.3.1-1 Environmental Aspects Procedure** and **COFL-GTL-ED-4.3.1-2 Evaluation of Aspects & Impacts Matrix**.
- 2.3 The *Operational Controls*, SOP will document the instructions related to *Monitoring and Measurement* tasks as needed. Further details regarding *Operational Controls* are defined in **COFL-GTL-EP-4.4.6-1 Operational Controls Procedure**.



## 3.0 Responsibility

- 3.1 The **Regional Wastewater Facility Manager** is responsible for evaluating compliance with relevant environmental legislation and regulations periodically as defined in the **COFL-GTL-EP-4.5.2-1 Evaluation of Compliance Procedure**. This evaluation will be conducted in accordance with the **COFL-GTL-EP-4.5.5-1 Internal Audit Procedure** and the **COFL-GTL-EP-4.3.2-1 Legal & Other Requirements Procedure**.
- 3.2 The **ESMS Coordinator** will coordinate and maintain the procedures and work product related to *Monitoring and Measurement* of the City of Fort Lauderdale by gathering the necessary information and use of the following:  
**COFL-GTL-ED-4.5.1-2 Monitoring & Measurement of Objectives, Targets and Programs;**  
**COFL-GTL-ED-4.5.1-3 Monitoring & Measurement Calibration Log;**  
**COFL-GTL-ED-4.5.1-4 Monitoring & Measurement Annual Evaluation;** and  
**COFL-GTL-EP-4.5.2-1 Evaluation of Compliance Procedure.**
- 3.3 The **GTL Team** will identify the activities and operations that are associated with monitoring and measurement of the significant aspects. They will also conduct the annual evaluation of the overall performance of the ESMS.
- 3.4 **The Instrument Technician** is responsible for collecting the *Monitoring and Measurement* data, and coordinating the **calibration of equipment** in their respective areas. **Inspections** will continue to be conducted routinely by personnel who possess the required skills. Such skills may exist or be acquired through training.

## 4.0 Definitions

- 4.1 Refer to **COFL-GTL-EP-4.4.4-2 ESMS Related Definitions Procedure**

## 5.0 Process

- 5.1 **Objectives, Targets and Programs:**
  - 5.1.1 Performance monitoring will be coordinated to track the progress toward meeting the set *Objectives, Targets and Programs*.
  - 5.1.2 Performance indicators within the **COFL-GTL-ED-4.5.1-2 Monitoring & Measurement of Objectives, Targets and Programs** summary will provide relevant, practical, cost effective and technologically feasible indicators to measure and track progress toward meeting the objectives and targets. Gathering sufficient and accurate information that is qualitative and quantitative will allow the City of Fort Lauderdale to make informed decisions regarding the progress toward meeting the *Objectives, Targets and Programs*.
  - 5.1.3 Progress and corrective action toward achieving the set *Objectives, Targets and Programs* (tasks of the action plans) will be communicated to ESMS Core Team semi-annually during the first two years of ESMS implementation.
  - 5.1.4 The **Regional Wastewater Facility Manager** and the **ESMS Coordinator** completes the **COFL-GTL-ED-4.5.1-2 Monitoring & Measurement of Objectives, Targets and Programs** summary and communicates the information to ESMS Core Team in the most effective method (electronic review, verbal review, or hard copy correspondences) and documents a record of the Management Review.



## 5.2 **Operational Control:**

- 5.2.1 The **GTL Team** will identify and review those activities and operations that are associated with *Monitoring and Measurement* of the significant aspects at GTL.
- 5.2.2 *Standard Operating Procedures* will be *Monitored and Measured* as indicated in applicable ESMS programs, procedures, and supporting Standard Operating Procedures. The methods, frequencies and responsible personnel for completing the *Monitoring and Measurement* activities will be specified in these documents.
- 5.2.3 Specific activities or tasks associated with *Monitoring and Measurement* will typically be included within the related *Standard Operating Procedures*.

## 5.3 **Calibration:**

- 5.3.1 **Instrument Technician** will maintain a calibration log of equipment requiring calibration and the corresponding calibration frequency. Calibration of measurement equipment, testing equipment and instruments associated with the identified operations will be maintained on the **COFL-GTL-ED-4.5.1-3 Monitoring & Measurement Calibration Log**.
- 5.3.2 The calibration log will include: **location** of the equipment, equipment **information**, and **calibration frequency**.
- 5.3.3 **Instrument Technician** will ensure that monitoring equipment is used, calibrated and maintained at a frequency consistent with manufacturers' recommendations, **or at least every year** if those recommendations are unknown.

## 5.4 **Evaluation of Environmental Compliance:**

- 5.4.1 The ISO 14001:2004 standard addresses *Evaluation of Compliance* in section 4.5.2 and requires the organization to establish and maintain a procedure for periodically evaluating compliance with relevant environmental legislation and regulations. GTL addresses this requirement in **COFL-GTL-EP-4.5.2-1 Evaluation of Compliance Procedure**.

## 5.5 **ESMS Performance Tracking:**

- 5.5.1 The **ESMS Core Team** will evaluate of the ESMS performance **annually**. This evaluation will become the basis for the next years planning and for documenting continuous improvement.
- 5.5.2 The questions and answers for the ESMS performance evaluation will be documented on **COFL-GTL-ED-4.5.1-4 Monitoring & Measurement Annual Evaluation**. Pollution prevention activities and results will also be documented during this evaluation and controlled as ESMS records



## 6.0 References / Related Documents

- 6.1 COFL-GTL-EP-4.3.1-1 Environmental Aspects Procedure
- 6.2 COFL-GTL-ED-4.3.1-2 Evaluation of Aspects & Impacts Matrix
- 6.3 COFL-GTL-EP-4.4.6-1 Operational Controls Procedure
- 6.4 COFL-GTL-EP-4.5.2-1 Evaluation of Compliance Procedure
- 6.5 COFL-GTL-EP-4.5.5-1 Internal Audit Procedure
- 6.6 COFL-GTL-EP-4.3.2-1 Legal & Other Requirements Procedure
- 6.7 COFL-GTL-ED-4.5.1-2 Monitoring & Measurement of Objectives, Targets and Programs
- 6.8 COFL-GTL-ED-4.5.1-3 Monitoring & Measurement Calibration Log
- 6.9 COFL-GTL-ED-4.5.1-4 Monitoring & Measurement Annual Evaluation
- 6.10 COFL-GTL-ED-4.5.1-5 Monitoring & Measurement Annual Review Maintenance