

 City of Dallas	Document Number:	COD-EMS-PRO-011	Revision Number:	3
	Approved By:	EQS Managing Director	Effective Date:	2/3/2020
	Description of Last Change:	Added requirement for use of Pollution Prevention Daily Checklist		
Document Title:	Monitoring, Measurement, and Calibration <small>ISO 14001:2015 5.2, 9.1, City of Dallas Environmental Policy</small>			

1. **PURPOSE:** This document describes the procedure for monitoring and measuring key characteristics of City operations that can have a significant environmental impact. The intent of such monitoring and measuring is to prevent pollution by tracking environmental performance, assessing implementation and effectiveness of operational controls, and tracking performance of objectives and targets.
2. **SCOPE:** This procedure addresses operations and activities that can have a potential preventable impact on the environment and applies to the City-wide Environmental Management and personnel with monitoring and measurement responsibilities.
3. **ENVIRONMENTAL:** Utilization of Environmental Management Systems, as appropriate for our operations, to provide a framework for systematically reviewing and reducing our environmental footprint.
4. **DEFINITIONS:**
 - 4.1 **Continual Improvement:** Recurring activity to enhance performance.
 - 4.2 **Consent Decree Facility:**
 - 4.3 **Environment:** outdoor areas within a facilities fenceline that cannot be closed off in a manner that will prevent pollution from impacting surface water, ground water, land, air, infrastructure, or neighboring properties.
 - 4.4 **Environmental Performance:** Performance (measurable results) related to the management of environmental aspects.
 - 4.5 **Fenceline:** The area, and associated activities, in which an organization chooses to implement its EMS – a department, division, or specific operation.
 - 4.6 **Management Review:** A periodic review of the City’s EMS which includes inputs and outputs contained in this procedure.
 - 4.7 **Manned Facility:** A facility which houses staff at or near full time, or is the base of operations for field staff.
 - 4.8 **Measurement:** Process to determine a value.
 - 4.9 **Monitoring:** Determining the status of a system, a process or an activity. To determine the status, there might be a need to check, supervise, or critically observe.
 - 4.10 **Performance:** Measurable result

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- 4.11 **Performance Indicator (PI):** Measurable representation of the condition or status of operations, management or conditions.
- 4.12 **Pollution Prevention Daily Checklist (PPDC):** A checklist used to ensure a facility's likely preventable/potential impacts on the environment are monitored daily.
- 4.13 **Top Management:** The City Manager (or designee), Assistant City Managers, and executive staff, or combination thereof, who provide resources and coordinate, direct, or control departments falling within the EMS. Pursuant to Dallas City Charter Ch. VI, Sec. 2(14), the City Manager may designate any of the Assistant City Managers to perform any of the powers and duties imposed on the City Manager.
- 4.14 **Unmanned Facility:** A facility or storage yard which does not meet the definition of a manned facility.

5. **RESPONSIBILITY & AUTHORITY:**

- 5.1 Department Directors are responsible for:
 - 5.1.1 Ensuring adequate personnel and resources for the completion of the requirements of this procedure.
 - 5.1.2 Ensuring appropriate action is taken when pollution releases occur.
- 5.2 The Office of Environmental Quality & Sustainability (EQS) is responsible for:
 - 5.2.1 Assisting departments with developing monitoring and measurement plans and identification of associated EMS performance indicators.
 - 5.2.2 Consolidating and reporting environmental performance and presenting results to the City Manager's Office during EMS Top Management Review meetings.
 - 5.2.3 Conducting periodic compliance and EMS audits as described in COD-EMS-013, EMS Audits Procedure.
 - 5.2.4 Reviewing PPDCs used at City facilities for effectiveness in addressing preventable/potential pollution risks at City facilities within the EMS fenceline.
 - 5.2.5 Assisting EMS departments with development of PPDCs when requested.
- 5.3 The Environmental Management Representative is responsible for:
 - 5.3.1 Monitoring and tracking results.

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5.3.2 Maintaining ongoing communication with the EQS regarding EMS program implementation efforts.

5.3.3 Ensuring facility PPCDs address preventable pollution risk at manned facilities within their department.

5.4 Staff at facilities within the EMS fenceline are responsible for:

5.4.1 Completing PPDCs for each normal operating day.

5.4.2 Ensuring that preventable pollution sources are not releasing pollution to the environment.

5.4.3 Ensuring pollution releases are remediated and required notification are made when applicable.

5.4.4 Ensuring required monitoring and measuring records are completed and maintained.

5.4.5 Ensuring equipment requiring calibration and records showing calibration are maintained.

6. PROCEDURES

6.1. In addition to objectives and targets and compliance obligations, departments shall determine what, if any, additional performance indicators will be monitored and measured to evaluate their environmental performance.

6.2. Departments shall determine the methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results.

6.3. Departments shall determine the criteria against which the organization will evaluate their environmental performance, and appropriate indicators.

6.4. Unless otherwise required by EQS, departments shall determine when the monitoring and measuring will be performed and when the results shall be analyzed and evaluated.

6.5. As new projects arise or existing activities change, the affected Department will review the projects/activities to determine if new monitoring and measurement requirements are needed and adjust their performance indicators if appropriate.

6.6. EQS will compile performance indicator data from objectives and targets and provide periodic updates to senior management at annual review meetings.

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- 6.7. EQS will use data compiled from objectives and targets and possibly other performance indicators to evaluate the City’s environmental performance and the effectiveness of the EMS.
- 6.8. Relevant environmental performance information will be communicated, both internally and externally, by departments and/or EQS, as identified in the Internal Communications Procedure (COD-EMS-PRO-007) and the External Communications Procedure (COD-EMS-PRO-019).
- 6.9. Equipment used to monitor and measure the City’s environmental performance shall be calibrated or verified and maintained, as appropriate.
 - 6.9.1. Any City calibration equipment must be certified/verified to be within the manufacturers' or appropriate standard (such as EPA Method 5) calibration requirement at least annually.
 - 6.9.2. Logs of equipment calibrations must be maintained within each affected department. Logs shall include name of the equipment, calibration frequency, date of calibration, and the company completing the work.
 - 6.9.3. All monitoring equipment must be identified and tracked.
 - 6.9.4. When possible, environmental monitoring equipment rented from an outside vendor shall be delivered calibrated along with the calibration records. It is the responsibility of the department manager/supervisor to verify that all delivered equipment is properly calibrated before use.
 - 6.9.5. All calibration records are maintained with each affected department and are subject to review during an environmental audit.
- 6.10. Departments and/or EQS shall retain appropriate documented information as evidence of the monitoring, measurement, analysis and evaluation results.
- 6.11. For manned facilities and at fuel dispensing facilities and within the EMS fenceline, departments shall design and use a PPDC to ensure that pollution is prevented at its source and that pollution incidents are addressed.
 - 6.11.1. PPDCs shall be designed so that they consider the facility’s activities and preventable pollution risks to the environment including risks to waterways, watersheds, ground water sources and the City’s MS4, air; ground, and infrastructure.

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- 6.11.2. For large facilities, departments may utilize more than one PPDC in order to meet the requirements of this procedure.
- 6.11.3. For facilities with multiple tenants, departments may share or delegate responsibility for completing PPDCs providing each tenant within the EMS fenceline can show that its preventable/potential impacts are addressed by the PPDC being used and a method of communication and contacts between departments is documented.
- 6.11.4. PPDCs shall be completed in the field for each day that a facility normally operates or per 6.12 for unmanned facilities.
- 6.11.5. Deficiencies found during the completion of a PPDC shall note the deficiency and the date of completion of any corrective actions.
- 6.11.6. PPDCs shall be reviewed for accuracy and signed no later than two weeks from the end of the period for which they were completed.
- 6.11.7. Completed PPDCs shall be retained for a period of three years and shall be readily available for audit.

6.12. For unmanned facilities, departments shall determine, based on risk and past performance and operational needs, the frequency at which a pollution prevention checklist should be completed if needed.

7. REFERENCES:

- COD-EMS-PRO-007 Internal Communications
- COD-EMS-PRO-019 External Communications
- City of Dallas Environmental Policy

8. RECORDS:

NA

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Attachment A: List of Possible Environmental Issues and Impacts

Environmental impact and risks shall be addressed by departments and may include but are not limited to the following.

- Spills from vehicles
- Spills from equipment
- Spills from fuel islands and associated piping
- Spills from ASTs and associated piping
- Loose trash/debris
- Improperly stored hazardous waste
- Improperly stored non-hazardous waste
- Incompatible materials stored together
- Improperly stored hazardous materials
- Open containers of waste
- Uncovered containers of trash
- Items not stored off the ground or in secondary containment
- Open dumpsters/trash cans
- Open/uncovered roll-off containers/waste bins
- Missing dumpster plugs
- Missing sewer clean-out covers
- Vehicle/equipment repairs performed outside without proper containment
- Vehicle/equipment parts with potential for release left uncovered and/or directly on the ground
- Vehicle/equipment washing not performed in appropriate areas (ex: wash bays/washouts)
- Drain/grease trap/sand trap not properly maintained
- Stormwater inlets not properly maintained
- Stormwater pathway contains debris/spills etc.
- Inlet protection/BMPS not maintained
- Vehicles/equipment idling
- Releases from inside buildings escaping to outside
- Improperly operating equipment causing release to the environment including air, water, ground, or infrastructure
- Spills/releases impacting the environment including air, water, ground or infrastructure
- Unintended air emissions from vehicles/equipment/facilities
- Permitted activities which may be required to be controlled on a daily basis (ex: silt fencing/trash containment around landfill)
- Spill buckets for USTs are not empty
- Vehicle/equipment with leaks not equipped with drip pans