

EP-10

Monitoring and Measurement

Rev. Date: 10-08-2007 Rev. No. #2

Origination Date: 01-01-2002

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1.0 Purpose

This procedure defines the mechanism for the monitoring and measurement of "key characteristics" and other monitoring parameters associated with significant environmental aspects, legal requirements, and other areas of the <COMPANY NAME> EMS. Where applicable, monitoring equipment calibration procedures will also be discussed. The evaluation of compliance with relevant environmental legal requirements shall be accomplished through the implementation of EP-02.

2.0 Scope

This procedure applies to operations of <COMPANY NAME> that have related environmental aspects

3.0 Responsibilities

The EMR is responsible for identifying all Monitoring Parameters

The Department Managers are responsible for ensuring monitoring is conducted, records are maintained and calibrations (if required) are conducted.

4.0 Forms Used

EF-08A	Operational Controls, Contractors & Key Characteristics
EF-10B	Environmental Monitoring Calendar and Tracking Spreadsheet (optional)
EF-03C	Objectives & Targets Project Plan - Tracking Form

5.0 Procedure

5.1 Identification of Monitoring Parameters

- 5.1.1 The EMR or designee will identify Key Characteristics and other monitoring parameters on Form EP-10A. These may include some of the following:
 - Operating criteria associated with Operational Controls or Maintenance
 - <u>Key Characteristics¹</u> and <u>Other Performance Parameters</u> associated with Significant Aspects and
 - Legally Required Monitoring

^{1. &}lt;sup>1</sup> **Key Characteristics:** Primary monitoring parameters which indicate performance in key areas of the EMS. Examples are air emissions, waste water discharges, meeting compliance requirements, maintaining operational controls, or other areas – especially those surrounding significant aspects. These can be looked at as indicators of whether your EMS is succeeding or failing.



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Monitoring will also be conducted to track progress made towards achieving Environmental Targets and Objectives. This may be done using the Objectives & Targets Project Plan - Tracking Form, EF-03C.

5.13 To assist the EMR or designee, a schedule of events and monitoring parameters can be documented on the Environmental Monitoring Calendar and Tracking Spreadsheet (EP-10B)

5.2 Work Instructions

5.2.1 If the complexity of the monitoring situation warrants it, a documented monitoring procedure will be developed. These may equipment operating manuals, work instructions covering, department preventative maintenance programs, local work practices, etc.

5.3 Monitoring Records

- 5.3.1 Records of progress made on Environmental <u>Objectives and Targets</u> will be on the Objectives & Targets Project Plan Tracking Form (EF-03C) or on other records associated with the task or target being worked on
- 5.3.2 Records of monitoring associated with <u>Operational Controls or Maintenance Procedures</u> will be dictated in those written work instructions if applicable and documented accordingly
- 5.3.3 Records of Monitoring of <u>Key Characteristics</u> and <u>Other Performance Parameters</u> associated with Significant Aspects will be maintained according to written work instructions if applicable or on the Environmental Monitoring Calendar and Tracking Spreadsheet (EF-10B)
- 5.3.4 The list of what parameters will be monitored for <u>Legal and Other Requirements</u> (if applicable) will be specified after the initial compliance evaluation has been completed. These monitoring records may be either:
 - Compliance Evaluation Forms (EF-02B)
 - In the environmental document itself (permit, regulatory agency correspondence\ directive, citation or code, etc), or
 - Environmental Monitoring Calendar and Tracking Spreadsheet (EF-10B)
 - other

5.4 Calibration and Maintenance of Environmental Monitoring Equipment



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5.4.1 Relevant areas and departments shall ensure that environmental monitoring equipment is calibrated – so that the data accuracy needs are met. If the data accuracy required for a given monitoring situation is not critical – and calibrations are not needed, then they will not be performed.

- 5.4.2 As a first step in determining the need for calibrations, <COMPANY NAME> personnel will determine if conducting calibrations according to equipment manufacturer's recommendations is sufficient to meet data accuracy needs. If so, calibrations will then be conducted accordingly
- 5.4.3. If more accuracy is needed than what is recommended by the equipment manufacturer, then additional calibration measures will be taken.
- 5.4.4 If less accuracy is needed than what is recommended by the equipment manufacturer, then fewer calibrations will be performed using standards and criteria sufficient to meet the <COMPANY NAME>'s accuracy needs.
- 5.4.5 Records of calibrations will be recorded as dictated by the work instruction or equipment manual.

6.0 References

ISO 14001-2004, §4.5.1

7.0 Related Procedures

8.0 Records

ER-08A (**Appendix H**) Operational Controls, Contractors & Key Characteristics ER-10B Environmental Monitoring Calendar and Tracking Spreadsheet (optional)

ER-03C Objectives & Targets Project Plan - Tracking Form

Other Monitoring Records

Calibration Records (if conducted)

9.0 Revision History

Revision No.	Description of Change	Page #	Date
1	Title Changes	1	1/10/2005
2	Minor Changes	All	10/8/2007