

NCCOS	EMS ENVIRONMENTAL MANAGEMENT SYSTEM STANDARD	Date Issued/Revised: 10/19/05; 02/25/08
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**EMS 012**  
**ENVIRONMENTAL SAMPLING, MONITORING AND PERFORMANCE MEASUREMENTS**

**1. PURPOSE**

To ensure environmental monitoring and performance measurements are identified and maintained whereby the facility can track and report performance. All sampling, monitoring and measurement shall be carried out in accordance with recognized standards and procedures.

**2. SCOPE**

This procedure applies to NOAA line functions that have implemented an Environmental Management System (EMS).

**3. METHODOLOGY**

**3.1 MONITORING**

3.1.1 Performance measures are designed to provide the facility with:

- a clear picture of performance on an ongoing basis (period for monitoring should be determined based on legal and other requirements or monitoring results)
- means to inform management of EMS status,
- means to track and report environmental performance, and
- means to compare system and environmental indicators over time.

***Objectives and Targets***

3.1.2 Organizations should develop performance metrics as part of the process for developing objectives and targets. The metrics should be clearly stated in Environmental Management Programs, Environmental Improvement Plans or other plans to achieve objectives and targets. Where possible metrics should be quantitative.

3.1.3 Responsibility for tracking progress toward achieving objectives and targets using metrics should be clearly defined in Environmental Management Programs, Environmental Improvement Plans, or other plans to achieve objectives and targets.

3.1.4 Responsibility for providing progress reports on the achievement of objectives and targets should be clearly defined. Reporting may occur during EMS team meetings, the management review, the internal audit etc.

***Operational Controls***

3.1.5 Organizations should develop performance metrics as part of the process for developing operational controls. These should indicate whether the control is being followed and is effective in controlling the potential impact of the activity to which it applies. These metrics may be stated in operational control itself or described as part of a comprehensive monitoring program. Where possible metrics should be quantitative.

3.1.6 Responsibility for tracking progress toward achieving objectives and targets using metrics should be clearly defined in operational control itself or in a comprehensive monitoring program.

3.1.7 Responsibility for reporting when there are non-conformances with operational controls should be designated within operational control itself or in a comprehensive monitoring program. Reporting to the EMS team and managers may be used to determine what corrective and preventative actions should be taken.

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**Utilization of Monitoring Data:**

3.1.8 The EMS Team will utilize performance data to improve the EMS.

3.1.9 The EMS Team will use performance data for objectives and targets to ensure that programs and plans remain on track to achieve intended objectives and targets (and if not determine why not). They will use the data to adapt approaches contained in the programs and plans so that objectives and targets are achieved more efficiently and effectively. They will use the data to identify areas for which new objectives and targets should be established.

3.1.10 The EMS Team will use operational control monitoring data to determine the effectiveness of controls (and if not determine why not). They will use the data to modify controls so that they control the environmental impacts of activities more efficiently and effectively. They will use the data to identify areas for which new objectives and targets and should be established (including objectives to improve or establish new controls).

**3.2 SAMPLING**

3.2.1 Sampling will be performed when deemed necessary. The necessity of the sample will be based on the following criteria:

- Suspected negative impact on the environment
- Legislative and regulatory compliance
- Track environmental performance in relation to Environmental Improvement Activities and Pollution Prevention Assessments
- Cost-benefit

3.2.2 Additional areas which may direct sampling requirements include:

- Community sensitivity
- Employee sensitivity
- Political sensitivity
- Local circumstances
- Insurance liability
- Nuisance

3.2.3 All analysis performed to ensure conformance with legal requirements must be done at an EPA Certified Laboratory. Results must be reviewed immediately upon receipt of analysis. Results must be compared with relevant license limits, standards or regulations.

3.2.4 NOAA's use of GSA or Blanket Purchase Agreements for labs must ensure that minimum requirements are met and that appropriate calibration records are maintained.

**3.4 GENERAL**

3.4.1 All monitoring, measurement and analysis, as required by regulatory agencies, must be reported to the appropriate licensing authority within the periods specified by the authority.

3.4.2 All monitoring, measurement and analysis results should be retained in conformance with regulatory requirements. Where regulation does not reference retention periods, results should be retained for seven (7) years.

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3.4.3 Instruments used in the collection of data must be calibrated in conformance with manufacturer's recommendations. Instructions from the manufacturer must be retained on site. Where regulation does not reference retention periods, records of calibration must be retained for seven (7) years.

3.4.4 Contractors used to perform instrument calibration must be required to follow manufacturer instructions and records must be retained.

#### **4. FACILITY REQUIREMENTS AND RESPONSIBILITIES FOR IMPLEMENTATION**

NOAA NCCOS should take the following step to implement and maintain an EMS that conforms to NOAA's EMS requirements and E.O.13423.

1. Facility EMS Teams should follow the methodology above monitor and measure environmental performance.

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