



SEMP-13		U.S. Army-Hawaii	
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SEMP-13: Monitoring and Measurement

1. Purpose

To establish the U.S. Army-Hawaii’s process for monitoring and measuring the performance of its SEM. Monitoring and measurement is necessary to evaluate and improve the installation’s performance. In addition, monitoring and measurement allows the installation to identify areas that require corrective action and to determine the root cause(s) of such problem areas.

2. Definitions

Definitions and acronyms are included in the SEM Manual.

3. Requirement [ISO 14001:4.1] and Procedure

ISO Requirement	Procedure
<p>The organization shall establish, implement and maintain a procedure to monitor and measure, on a regular basis, the key characteristics of its operations that can have a significant environmental impact. The procedure shall include the documenting of information to monitor performance, applicable operational controls and conformity with the organization's environmental objectives and targets.</p>	<p>U.S. Army-Hawaii has established, implemented, and maintains a procedure to monitor and measure its significant environmental aspects and conformity with its environmental objectives and targets. The procedures are described in <i>SEMP-03: Environmental Aspects</i> and in <i>SEMP-05: Objectives, Targets and Programs</i>. The installation’s significant environmental aspects are re-evaluated on a regular basis, by repeating the procedure described in <i>SEMP-03</i>. Conformity with the installation's environmental objectives and targets is closely monitored and progress is reported to senior management periodically in accordance with <i>SEMP-05</i> and <i>SEMP 18: Management Review</i>.</p> <p>Performance of applicable operational controls is documented through several processes, including but not limited to:</p> <ul style="list-style-type: none"> • Progress toward achieving environmental objectives and targets. • Army external Environmental Performance Assessment System (EPAS) evaluations and external SEM audits conducted by the Army Environmental Command (AEC). • Internal environmental media specific compliance inspections and SEM audits. • Routine regulatory agencies (e.g., DOH, EPA) inspections. • EQCC and CFT meeting minutes. <p>Objectives and targets are described in <i>SEMP-05: Objectives, Targets and Programs</i>. Internal environmental media</p>

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	<p>specific compliance inspections, EPAS evaluations and routine regulatory inspections are described in <i>SEMP-14: Evaluation of Compliance</i>. Internal and external SEM audits are described in <i>SEMP-17: Internal Audit</i>.</p> <p>EQCC and CFT meetings are described in <i>SEMP-06: Roles and Responsibilities</i>.</p>
<p>The organization shall ensure that calibrated or verified monitoring and measurement equipment is used and maintained and shall retain associated records.</p>	<p>Environmental monitoring equipment is calibrated and maintained at a frequency consistent with manufacturers and/or Army recommendations. Affected units/organizations maintain calibration and maintenance records as necessary to prove conformance with this procedure.</p> <p>Calibration and maintenance of environmental monitoring equipment are addressed in area-specific preventative maintenance programs or local work practices, where applicable.</p> <p>This procedure does not apply to equipment that is calibrated or self-tested before each use, or to equipment that is calibrated more frequently than once a month. Calibration of this frequency is considered a part of the operating procedures for the equipment. Calibration records for this equipment will be maintained as part of the equipment operating logs or other records established by the equipment owner.</p>

4. Responsibilities

Responsible Party	Responsibilities
Army Environmental Command (AEC)	<ul style="list-style-type: none"> Conducts EPAS evaluations generally every three years or as deemed appropriate by AEC.
Garrison Commander (GC)/ Sustainable Environmental Management Representative(SEMR)	<ul style="list-style-type: none"> Review results of monitoring and measurement of the installation's significant environmental aspects and of the SEM objectives and targets. Directs changes as necessary to promote continual improvement of the SEM.
Plans Analysis and Integration Office (PAIO)	<ul style="list-style-type: none"> Tracks, measures and reports to Senior Leaders, Garrison Hawaii's performance indicators illustrating progress towards achieving the installation's Strategic Planning Sustainability Goals.
Installation Environmental Division Chief (IEDC)	<ul style="list-style-type: none"> Oversees monitoring and measurement of the installation's significant environmental aspects and of the SEM objectives and targets.
SEM Program Manager (SEMPM)	<ul style="list-style-type: none"> Manages the identification of environmental aspects, objectives, and targets in accordance with <i>SEMP-03: Environmental Aspects</i> and <i>SEMP-05: Objectives, Targets and Programs</i>.

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	<ul style="list-style-type: none"> Briefs the installation's SEM performance status during management reviews and/or EQCC meetings. Host CFT meetings periodically and discuss environmental concerns of units/organizations represented by their CFT members. Conducts internal audit of the installation's SEM. Participates in external EPAS evaluations, SEM external audits, and other external inspections conducted by regulatory agencies, as necessary.
Environmental Division Staff	<ul style="list-style-type: none"> Develops Garrison-wide operational controls for environmental aspects, objectives and targets. Tracks and ensures monitoring requirements, stipulated in facility environmental permits issued by regulatory agencies, are met. Tracks, measures and reports performance status towards achieving the SEM objectives and targets relevant to their respective program areas. Participate in CFT and EQCC meetings, as necessary. Participate in internal compliance assessments and SEM internal audits. Participates in external EPAS evaluations, SEM external audits, and other external inspections conducted by regulatory agencies, as necessary. Manage applicable monitoring equipment calibration records.
Environmental Compliance Officer (ECO) Instructor	<ul style="list-style-type: none"> Assesses the effectiveness of the ECO training against environmental compliance findings identified by internal and external evaluations. Implement changes to the ECO training curriculum, as necessary, to promote continual improvement of the installation's environmental compliance posture.
Environmental Division Compliance Inspectors	<ul style="list-style-type: none"> Conduct quarterly unannounced environmental compliance inspections of U.S. Army-Hawaii industrial operations. Monitors compliance trends and notify affected units commanders and organizations Department Heads, Directors and Supervisors of inspection results via formal letters and/or emails. Brief CFT members and EQCC members on inspection results and trends.
Environmental Quality Control Committee (EQCC) Members	<ul style="list-style-type: none"> Review and endorses the installation's significant environmental aspects. Endorse the installation environmental objectives and targets and reviews progress. Review the successes or failures of achieving the environmental objectives and targets and recommends modifications to the action plan as necessary. Communicate/implement relevant environmental objectives and targets within their respective organization.
Cross Functional Team (CFT) Members	<ul style="list-style-type: none"> Track and report to the SEMPM and their Supervisors, the environmental performance of their respective unit/organization pertaining to compliance with legal and other requirements, operational controls, emergency

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	<p>preparedness and response, significant environmental aspects and their units/organizations' successes or challenges in achieving the environmental objectives and targets.</p> <ul style="list-style-type: none"> • Participate in external compliance inspections and SEM audits. • Conduct applicable internal environmental assessments and inspections.
Unit Commanders, Department Heads, Directors and Supervisors	<ul style="list-style-type: none"> • Review the environmental performance of their respective unit/organization pertaining to compliance with legal and other requirements, operational controls, emergency preparedness and response, significant environmental aspects and their units/organizations' successes or challenges in achieving the environmental objectives and targets. • Direct changes as necessary to promote continual improvement of their unit/organization environmental performance. • Participate in external and internal compliance inspections and SEM conformance audits, as necessary.
Environmental Compliance Officers (ECOs)	<ul style="list-style-type: none"> • Responsible for knowing and abiding by the operational controls and environmental objectives and targets affecting their respective facility. • Report any successes or challenges in complying with applicable operational controls and environmental objectives and targets to their Supervisors, CFT representatives or the Environmental Division. • Conduct applicable internal inspections. • Participate in internal and external compliance inspections and SEM audits, as necessary. • Participate in CFT and EQCC meetings, as necessary.
General Workforce (Military, Civilian, and other employees)	<ul style="list-style-type: none"> • Responsible for knowing and abiding by the operational controls and environmental objectives and targets affecting their work practices. • Participate in internal and external compliance inspections and SEM audits, as necessary. • Communicate any successes or challenges in complying with applicable operational controls to their Supervisors, CFT representatives, ECOs or the Environmental Division. • Calibrate and maintain applicable monitoring equipment.
Contractors	<ul style="list-style-type: none"> • Responsible for knowing and abiding by the installation applicable operational controls and environmental objectives and targets pertaining to the activities, product and/or services provided to the U.S. Army-Hawaii as part of their contracts. • Conduct applicable internal environmental compliance inspections of their operations. • Calibrate and maintain applicable monitoring equipment.

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5. References

- ISO 14001:2004(E), 4.1 Monitoring and Measurement
- U.S. Army-Hawaii SEM Manual
- SEM-03: Environmental Aspects
- SEM-05: Objectives, Targets and Programs
- SEM-11: Operational Controls

Revision Date	Nature of Revision	Document Review Participants
24 Jun 10	Review and Update	Jeff Stefani

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