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# COP11326: EMS Manual

## Environmental Management System

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## 1.0 Purpose and Scope

The purpose of this Environmental Management System (EMS) Manual is to:

- Provide a clear statement of the EMS and the methods by which conformance to this EMS is assured
- Establish a concise reference of practices and procedures for the EMS at SGI's Worldwide Manufacturing Organization (WMO) and Logistics in Chippewa Falls, Wisconsin
- Identify and designate personnel who will be responsible for ensuring that EMS standards are maintained

## 2.0 SGI's Environmental Policy

SGI recognizes the importance of conducting business and managing environmental issues in a responsible manner. We are committed to minimizing our environmental impact. Therefore, we use the following principles to guide our efforts:

- Comply with environmental regulations
- Conduct operations in an environmentally sound manner
- Apply the principles of "reduce, reuse, and recycle" in all processes
- Promote environmental responsibility among employees
- Ensure that suppliers agree to comply with environmental regulations
- Pursue continuous improvement in our environmental performance
- Clearly communicate SGI's environmental policies, practices, and impact to interested parties

## 3.0 Definitions

### **Communication:**

Any inquiry (e.g., question, concern, or suggestion) or response to an internal or external inquiry related to environmental activities or the EMS.

### **Continual Improvement:**

Process of enhancing the EMS to achieve improvements in environmental performance in line with SGI's environmental policy.

**Corrective Action:**

Any measure that must be taken to address an identified problem within a predetermined plan and clearly defined time schedule.

**Document:**

Procedure, instruction, manual, or other form of documentation that is used to manage the EMS. A controlled document refers to a document that has been assigned a number for tracking purposes. It has an owner who controls access by authorizing copies, assigning controlled copy numbers, specifying location of controlled copies, etc. An uncontrolled document is a copy of a document that is not controlled or tracked since it exists for illustrative, instructional, external distribution, or other like purposes.

**EMS Audit:**

A systematic verification process of objectively obtaining and evaluating evidence to determine whether an organization is conducting operations in conformance with its documented EMS.

**EMS Management Representative (EMR):**

The individual who serves as the liaison to Senior Management on all issues associated with the EMS. The Facilities Director serves as the EMR at WMO and Logistics.

**EMS Coordinator:**

The individual who provides overall guidance to implement and maintain the EMS. The Environmental, Health and Safety (EHS) Manager serves as the EMS Coordinator at WMO and Logistics.

**EMS Core Team:**

The team of personnel that is responsible for guiding the implementation of WMO and Logistics' EMS. Each year the EMS Core Team and/or their designees identify the environmental aspects, impacts, and significant aspects. The EMS Core Team is also responsible for setting the objectives and targets for continual improvement in environmental performance. The EMS Core Team will consist of the EMS Coordinator, the EMR, and representatives from Manufacturing, Engineering, Logistics, and Facilities.

**Environmental Aspect:**

An element of an organization's activities, products, or services that can interact with the environment.

**Environmental Impact:**

Any change to the environment, whether adverse or beneficial, resulting from an organization's activities, products, or services.

**Environmental Management System (EMS):**

The part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing, and maintaining the environmental policy.

**Environmental Objective:**

Overall environmental goal, arising from the environmental policy, that the organization seeks to achieve.

**Environmental Performance:**

Measurable results of the EMS related to an organization's control of its environmental aspects, based on its environmental policy, objectives, and targets.

**Environmental Policy:**

An organization's statement of its intentions and principles in relation to its overall environmental performance, which provides a framework for action and for the setting of its environmental objectives and targets.

**Environmental Program Document:**

Plan, procedure, manual, permit, etc., that is developed and maintained to describe and document activities that are mandated by an applicable law, rule, or regulation, and/or that might impact the environment.

**Environmental Target:**

Detailed performance requirement, quantified where practicable, that arises from the environmental objectives and that needs to be set and met in order to achieve the objective.

**External Source:**

Customers, neighbors, government agency representatives, media representatives, or others who may be interested in WMO and Logistics' environmental activities.

**ISO14001: 1996(E) Environmental Management Systems Specification:**

The international voluntary standard that lays out elements of an EMS.

**Monitoring and Measurement (M&M):**

Specific equipment and methods to track various operational (e.g., manufacturing, warehousing, maintenance, etc.) activities. M&M includes equipment calibration and other metrics such as inventory (e.g., waste recycling) records, inspection results, trend data, meter readings, etc.

**Nonconformance:**

Any activity or practice that does not support or is counter to the environmental policy or any EMS document or is in violation of a state or federal environmental regulation or permit.

**Operational Control:**

A practice or procedure that is conducted to ensure that activities are in line with the environmental policy and objectives and targets. The result of "operational control" is that impact to the environment is minimized and compliance with applicable regulatory requirements is demonstrated. Examples of operational controls include specific material storage practices, scrap management procedures, EHS inspections, chemical handling techniques, employee training, etc.

**Prevention of Pollution:**

Use of processes, practices, materials or products that avoid, reduce or control pollution, including recycling, treatment, process changes, control mechanisms, efficient use of resources, material substitution, etc.

**Preventive Action:**

Any activity that is taken to prevent a nonconformance or a problem.

**Problem:**

Any condition that has the potential to cause an environmental nonconformance.

**Procedure:**

A document that describes the scope, purpose, responsibilities, resources, and issues associated with an activity which is intended to ensure that all environmental requirements are addressed at WMO and Logistics.

**Record:**

Original written evidence (regardless of format or media) that something has been accomplished, e.g. inspection checklist, equipment calibration log, employee training roster, or other document generated during the course of business. A record does not change.

## 4.0 References

### 4.1 Related Documents and Information

- [http://www-admin.corp.sgi.com/company\\_info/environment](http://www-admin.corp.sgi.com/company_info/environment) (SGI' s worldwide website)
- Silicon Junction at <http://www-admin.corp.sgi.com/junction.cgi/home/> (SGI' s intranet website)
- Environmental Program Documents and Records

### 4.2 Cross Reference to the ISO 14001 Standard

This EMS conforms with the minimum standards specified in the ISO 14001:1996(E) Standard, as follows:

Element Description	ISO 14001 Section	WMO and Logistics' EMS
Scope	1.0	1
Normative References	2.0	NA
Definitions	3.0	3
EMS Requirements	4.0	5.1
General Requirements	4.1	5.1
Environmental Policy	4.2	2 & 5.2
Planning	4.3	5.3
Environmental Aspects	4.3.1	5.3.1
Legal and Other Requirements	4.3.2	5.3.2
Objectives and Targets	4.3.3	5.3.3
Environmental Improvement Program	4.3.4	5.3.4
Implementation and Operation	4.4	5.4
Structure and Responsibility	4.4.1	5.4.1

Training, Awareness, and Competence	<b>4.4.2</b>	<b>5.4.2</b>
Communications	<b>4.4.3</b>	<b>5.4.3</b>
EMS Documentation	<b>4.4.4</b>	<b>5.4.4</b>
Document Control	<b>4.4.5</b>	<b>5.4.5</b>
Operational Control	<b>4.4.6</b>	<b>5.4.6</b>
Emergency Preparedness and Response	<b>4.4.7</b>	<b>5.4.7</b>
Checking and Corrective Action	<b>4.5</b>	<b>5.5</b>
Monitoring and Measurement	<b>4.5.1</b>	<b>5.5.1</b>
Nonconformance, Corrective and Preventive Action	<b>4.5.2</b>	<b>5.5.2</b>
Records	<b>4.5.3</b>	<b>5.5.3</b>
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## 5.0 Elements of the EMS

### 5.1 General Requirements

**5.1.1** WMO and Logistics have established and maintain an EMS, the elements of which are described in this section.

**5.1.2** SGI' s Senior Management provides resources to implement and maintain the EMS, and reviews the EMS on a periodic basis as defined in Section 3.6 of this manual.

### 5.2 Environmental Policy

WMO and Logistics adhere to SGI' s Environmental Policy, which is stated in section 2.0 of this EMS Manual. As prescribed by the ISO 14001 Standard, SGI' s Environmental Policy:

- Is appropriate to the nature, scale, and environmental impacts of the organization' s activities, products, or services
- Includes a commitment to continual improvement and prevention of pollution
- Includes a commitment to comply with relevant environmental legislation and regulations, and with other requirements to which the organization subscribes
- Provides the framework for setting and reviewing environmental objectives and targets
- Is documented, implemented, maintained, and communicated to all employees
- Is available to the public

### 5.3 Planning

#### 5.3.1 Environmental Aspects

WMO and Logistics identify and evaluate their environmental aspects each year in accordance with the [Environmental Aspects Procedure \(COP11327\)](#). The EMS Coordinator records the annual review of the environmental aspects and their impacts on the forms provided in [COP11328](#). For example, Environmental Aspects & Impacts - 2003 Records, documents the aspects, impacts, and

significant aspects identified in fiscal year 2003.

### 5.3.2 Legal and Other Requirements

WMO and Logistics contract with an EHS consultant who routinely tracks regulatory requirements to identify applicable environmental laws, rules, and regulations. The [Legal and Other Requirements Procedure \(COP11330\)](#) specifies the procedure WMO and Logistics use to ensure on-going identification and access to applicable federal, State and local environmental laws, rules, and regulations. The [Regulatory Compliance Evaluation Procedure \(COP11336\)](#) describes how WMO and Logistics routinely evaluate legal and regulatory compliance.

### 5.3.3 Objectives and Targets

As part of the business plan development and EMS continual improvement processes, WMO and Logistics establish and maintain objectives and targets each year based on the following:

- Legal and other requirements that apply to WMO and Logistics
- Significant environmental aspects of WMO and Logistics' activities
- Technological options available to WMO and Logistics
- Financial, operational, and business requirements
- The views of interested parties
- WMO and Logistics' business requirements

### 5.3.4 Environmental Improvement Program

Significant aspects are evaluated and selected annually, using the form provided in [COP11329](#), the EMS Core Team. WMO and Logistics then prepare an Environmental Improvement Program (EIP) to record an objective and target for each significant aspect each fiscal year. The EIP records the responsibilities, time frame, action plan, and resources needed for achieving the specific environmental objectives and targets associated with each significant environmental aspect. The EMS Coordinator reports progress in meeting objectives and targets to the EMR on a quarterly basis. EIP records are maintained at [http://www-admin.corp.sgi.com/MidWestCentral/MidWest\\_HS/Environmental/index.html](http://www-admin.corp.sgi.com/MidWestCentral/MidWest_HS/Environmental/index.html)

## 5.4 Implementation and Operation

### 5.4.1 Structure and Responsibility

This EMS Manual defines roles, responsibilities, and authorities of personnel who manage, perform, and verify work affecting environmental issues at WMO and Logistics. SGI's Senior Management provides the necessary resources, both materials and staff, to ensure that the EMS is effectively implemented. The EMS Coordinator ensures that the EMS is established, implemented and maintained in accordance with this EMS Manual. The EMR reports on the performance of the EMS to management for review and as a basis for continual improvement.

### 5.4.2 Training, Awareness, and Competence

Personnel in job functions that have a significant impact on the environment must have the appropriate education, training, and/or experience to perform their job. [The Training, Awareness, and Competence Procedure \(COP11331\)](#) identifies how WMO and Logistics ensure that effective environmental training programs are provided, tracked and recorded so that regulatory compliance issues are addressed and potential impact on the environment is minimized. The EHS Manager specifies employee training requirements and the EHS Specialist maintains a web-based database of training courses, schedules, and records. Supervisors are responsible for ensuring that their employees receive the required training.

### 5.4.3 Communication

Information associated with WMO and Logistics' EMS will be communicated through a number of means, including the following:

- SGI' s worldwide website
- SGI' s intranet website
- Departmental meetings
- Environmental and safety meetings
- One-on-one meetings with personnel whose work affects environmental issues
- Employee bulletin boards
- Electronic mail

WMO and Logistics maintain a [Communications Procedure \(COP11332\)](#) for responding to inquiries, concerns, or questions related to environmental matters and the EMS originating from interested parties, internal and external to the organization.

### 5.4.4 EMS Documentation

This EMS Manual describes how core elements of the EMS are documented, implemented, and communicated.

### 5.4.5 Document Control

The [Document Control Procedure \(COP11333\)](#) describes how EMS documents are controlled and maintained at WMO and Logistics.

### 5.4.6 Operational Control

WMO and Logistics personnel maintain operational controls to ensure that activities associated with significant environmental aspects are in line with the environmental policy and objectives and targets. The [Monitoring and Measurement Procedure \(COP11334\)](#) describes how these practices and procedures are identified and documented where necessary. Various monitoring and measurement methods and operational controls associated with each significant aspect are recorded annually on the form provided in [COP11335](#). This procedure also describes WMO and Logistics' process for assuring that suppliers and contractors meet minimum environmental requirements.

### 5.4.7 Emergency Preparedness and Response

WMO and Logistics maintain emergency preparedness and response procedures for preventing and responding to incidents, accidents, and emergency situations. The [Chippewa Falls Emergency Action Plan](#) also addresses how any associated environmental impacts are prevented and mitigated. It is reviewed, tested, and revised periodically and after the occurrence of accidents or emergency situations as needed.

## 5.5 Checking and Corrective Action

### 5.5.1 Monitoring and Measurement

WMO and Logistics personnel perform specific monitoring and maintain measurement methods to track environmental compliance or performance as described in the [Monitoring and Measurement Procedure \(COP11334\)](#).

### 5.5.2 Nonconformance, Corrective and Preventive Action

The [Nonconformance, Corrective and Preventive Action Procedure \(COP11337\)](#) documents WMO and Logistics' procedure for handling nonconformances, and initiating and documenting corrective and preventive actions. WMO's [Closed Loop Corrective Action Web Tool \(COP10634\)](#) or Logistics' [Universal Corrective Action System](#) are used to identify non-conformance and initiate and track corrective or preventive action.

### 5.5.3 Records

EMS records are maintained in the EMS Filing System as prescribed in the [Records Maintenance Procedure \(COP11339\)](#). This document ensures that environmental records are properly identified, maintained, and disposed.

### 5.5.4 EMS Audit

In addition to regular internal compliance evaluations, the EMS is audited at least every even fiscal year to verify that it is being properly implemented and maintained. The [EMS Conformance Audit Procedure \(COP11340\)](#) and [EMS Internal Audit Report Form \(COP11338\)](#), describes how WMO and Logistics evaluate, and report EMS conformance.

## 5.6 Management Review

SGI's Senior Management evaluates the EMS to verify conformance with WMO and Logistics' EMS procedures after each EMS audit. This management review will consider the following:

- Continual improvement of the EMS
- Effective implementation of the EMS
- The continuing suitability of the EMS in relation to changing conditions and information
- The extent to which objectives and targets have been met, including tracking and reporting
- Closed Loop Corrective and Preventive Action (CLCA/CLPA) data

The observations, conclusions, and recommendations resulting from the management review will be documented and maintained by the EMS Coordinator.