

**ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) METRICS
FISCAL YEAR 2009**

(Note: These metrics will be used for Years 2009 through 2011.)

These metrics are provided to allow agencies, organization and facilities that are implementing an Environmental Management System to plan for reporting fiscal year 2009 progress, performance and successes. Each agency will be requested to provide a summary of this information. These metrics will be used until 2011 and may be amended by the E.O. Interagency Environmental Leadership Workgroup or the Office of the Federal Environmental Executive to reflect new information.

Part I: Facility/Organization-level Information

Please provide the following facility/organizational background information.

Agency / Department:	Department of Agriculture, Agricultural Research Service
Sub-Agency:	South Atlantic Area
Facility Name:	Tifton Location; Crop Protection & Management, Crop Genetics & Breeding, and Southeast Watershed Research Units
Description:	The Tifton EMS is designed to minimize and/or prevent environmental impacts that result from the operations both on the location, as well as, off-site field activities directed by ARS-Tifton.
Inception Date:	On or before January 24, 2007 (March 2005)
Full Implementation Date:	For pre January 24 2007 EMS's, the default date is December 31, 2008 (Actual date set for SAA: December 31, 2005)
Point of Contact:	Tamara M. Snipes, EMS Coordinator
POC E-mail:	Tamara.Snipes@ars.usda.gov
Performance Track Recognition:	NO
Other Recognition:	April 2009 the Tifton location won the Bronze Level Award from OFEE through the Federal Electronics Challenge for environmental efforts made during 2008.
ISO 14001 Registration:	NO
Comments:	

Part II: EMS External Audit and Declaration of Conformance

Background: The Implementing Instructions for EO 13423 state that for purpose of determining conformance to the EMS requirements of EO 13423, an EMS shall be considered fully implemented and in conformance when:

- (1) The EMS has been the subject of a formal audit by a qualified party outside the control or scope of the EMS. **AND***
- (2) The audit findings have been recognized by the appropriate level of the agency (facility/organization) implementing the EMS. **AND***
- (3) The appropriate senior manager accountable for implementation of the EMS has declared conformance to the EMS requirements of EO 13423.*

The Federal Environmental Executive issued clarification of these requirements in a document dated January 15, 2008, available at: <http://www.fedcenter.gov/Documents/index.cfm?id=8864>.

Note: EMS declarations made under EO 13148 are not valid for the purposes of declaration under EO 13423.

Once conformance of the EMS has been declared, the EMS shall then be audited at least every three years from the date of the initial declaration. An EMS audit may be considered completed “within three years” if the audit was scheduled within the three year deadline and was ultimately completed, but encountered unanticipated delays of up to three months. Based on this requirement, in reporting year 2010, these metrics will make available a response for EMSs that had an initial audit date of 2007

In FY 2009:

Not Currently In Conformance: The EMS for the facility/organization is not “fully implemented,” in accordance with the requirements of the CEQ Implementing Instructions (cited above).

Currently In Conformance: The EMS is “fully implemented” in accordance with the requirements of the CEQ Implementing Instructions (cited above).

Supplementary Data:

Date of Declaration of Conformance 05/11/2009

Declaration issued by Dr. Timothy Strickland

(Title) Location Coordinator, Tifton, GA

Date of completion of most recent EMS audit by a qualified party outside the control or scope of the EMS March 2009

Part III: EMS Performance Metrics for EMS Scorecard

Responses to these questions are scored as part of the agency EMS scorecard process.

1. Environmental Aspects

In FY 2009, within the scope of a facility's/organization's EMS:

- A. **Environmental aspects have not been identified** for all of the facility's/organization's activities, products, and services (including transportation and energy related activities).

- B. **Environmental aspects have been identified** for all of the facility's/organization's activities, products, and services (including transportation and energy related activities) but **without using an established procedure**.
OR
Using an established procedure, **environmental aspects have been identified** for all of the facility's/organization's activities, products, and services (including transportation and energy related activities). However, **significant aspects were not identified**.

- C. Using an established procedure, **environmental aspects have been identified** for all of the facility's/organization's activities, products, and services (including transportation and energy related activities) **AND significant environmental aspects for those activities, products, and services have been identified**. However, previously identified **environmental aspects were not reevaluated** OR were **not reevaluated using an established procedure**.

- Ⓓ Using an established procedure, both previously and newly identified **environmental aspects and significant environmental aspects were evaluated and updated** for all of the facility's/organization's activities, products, and services (including transportation and energy related activities).

2. Sustainable Practices

Note 1: Executive Order 13423 requires that EMSs address the environmental aspects of agency transportation and energy related activities. Section 2 of the EO directs Federal agencies to implement sustainable practices for:

- (a) Improvement in energy efficiency and reduction in greenhouse gas emissions,*
- (b) Use of renewable energy,*
- (c) Reduction in water consumption,*
- (d) Sustainable acquisition,*
- (e) Reduction of the use and disposal of toxic and hazardous chemicals and materials,*

- (f) Pollution and waste prevention/diversion and recycling programs,
- (g) High performance and sustainable buildings,
- (h) Vehicle fleet management, and
- (i) Electronics stewardship.

If a particular sustainable practice is determined to be not currently applicable to the reporting EMS, that determination should be documented and available to the parent agency. That sustainable practice can then be excluded from evaluation for this reporting period.

Examples of “not applicable” include a determination that a particular sustainable practice relates to environmental activities (a) that are not present at the facility/organization or (b) that are outside the control of the organization/facility during the reporting period (e.g., high performance building or renewable energy use in a leased facility). Note: If an organization/facility has the potential to influence the responsible organization with regard to sustainable practices, (e.g., in a lessee tenant relationship), that organization/facility shall attempt to influence the other organization to implement sustainable practices, e.g., through a letter or meeting, before it concludes the practice is “not applicable.”

*Note 2: If an agency has established agency-level requirements/programs to address the sustainable practices as required by Executive Order 13423, the facility/organization may adopt the Agency-level requirements/procedures to demonstrate conformance **provided that the facility/organization has implemented those requirements/programs.***

In FY 2009:

- A. The facility/organization has **not established programs** through its EMS to address applicable sustainable practices as required by Executive Order 13423.

- B. The facility/organization has **established some programs** through its EMS to address applicable sustainable practices as required by Executive Order 13423.
AND
The facility/organization has **implemented at least one** of the applicable sustainable practices through its EMS.
AND
The facility/organization has **established an implementation schedule** to implement the remainder of the applicable sustainable practices through its EMS.

- C. The facility/organization has **established and implemented programs** to address all applicable sustainable practices as required by Executive Order 13423 through its EMS.

- D** The facility/organization has **established and implemented programs** to address all applicable sustainable practices as required by Executive Order 13423 through its EMS.

AND

The facility/organization has **reviewed performance** of the EMS towards the objectives of the E.O. sustainable practices through their EMS monitoring and management review processes.

3. Objectives, Targets, and Programs

In FY 2009

- A. Measurable environmental **objectives, targets, and programs were not established and documented OR previously established and documented objectives, targets, and programs were not reviewed and updated** as appropriate.
- B. Measurable environmental **objectives, targets, and programs were established and documented OR previously established and documented objectives, targets, and programs were reviewed and updated AND less than 50% of the established targets were on schedule** to be met.
- C. Measurable environmental **objectives, targets, and programs were established and documented OR previously established and documented objectives, targets, and programs were reviewed and updated AND 50-79% of the established targets were on schedule** to be met.
- (D)** Measurable environmental **objectives, targets, and programs were established and documented OR previously established and documented objectives, targets, and programs were reviewed and updated AND 80% or greater of established targets were on schedule** to be met.

4. Environmental Training

Note: These metrics pertain to competence training for those whose tasks and/or activities have the potential to affect significant environmental aspects.

In FY 2009

- A. **Training requirements** to ensure individual competence and responsibility **were not identified or updated.**
- B. **Training requirements** to ensure individual competence and responsibility **were identified or updated** but **training was not available or was not carried out.**
- C. **Training requirements** to ensure individual competence and responsibility **were identified or updated** and **training was available, carried out and documented** during this reporting period.

- Ⓓ **Procedures** to ensure that training requirements for individual competence and responsibility **were established; training requirements** to ensure individual competence and responsibility **were identified or updated;** training (including refresher training) was **available and carried out and documented;** and training requirements for competence were **monitored and revised.**

5. Operational Controls

In FY 2009

- A. Documented **operational controls** to address activities associated with significant aspects and consistent with objectives and targets **were not established or updated.**
- B. Documented **operational controls** to address activities associated with significant aspects and consistent with objectives and targets **were established or updated and are partially implemented.**
- C. Documented **operational controls** to address activities associated with significant aspects and consistent with objectives and targets **were established or updated and are fully implemented.**
- Ⓓ Documented **operational controls** to address activities associated with significant aspects and consistent with objectives and targets **were established or updated and are fully implemented,** AND previously documented **operational controls were formally reviewed and/or updated** (i.e., supplemented, revised, deleted) as appropriate to ensure their ongoing effectiveness.

6. Contracts and Concessionaire Agreements

Note 1: The Instructions to Executive Order 13423 establishes “where contractor and concessionaire activities affect an agency’s environmental, transportation, or energy issues, those activities shall be addressed in the development, implementation, and maintenance of the EMS. Requirements shall be included in all appropriate contracts to ensure that the contractors’ roles and responsibilities under the EMS are properly addressed” (Instructions for Implementing Executive Order 13423, Section II B (2).

Note 2: An “appropriate contract” is one whose actions may have potential impact on the significant environmental aspects identified by the reporting EMS and entered into, revised, amended or otherwise modified after the date of Executive Order 13423.

Note 3: Appropriate contracts include legal arrangements with concessionaires.

Note 4: A documented determination of no appropriate contracts may be marked as a “D” provided that the procedure requires an annual review and a review of new contracts.

Note 5: Facilities/organizations are not precluded from modifying a contract existing prior to the date of Executive Order 13423 to include EMS considerations.

In FY 2009

A. During this reporting period or previously, the facility/organization **did not establish a procedure** to identify appropriate contracts or identify appropriate contracts in which to include EMS requirements.

B. During this reporting period or previously, the facility/organization **established a procedure** to identify appropriate contracts; **identified appropriate contracts** and the contractors' roles and responsibilities under the EMS; and **established a schedule** to modify appropriate contracts.

However, the facility/organization **did not modify appropriate contracts** to include EMS requirements and defined roles and responsibilities.

C. During this reporting period or previously, the facility/organization **established a procedure** to identify appropriate contracts; **identified appropriate contracts** and the contractors' roles and responsibilities under the EMS; **established a schedule** to modify appropriate contracts; and was **in the process** of modifying contracts to include EMS requirements and defined roles and responsibilities in appropriate contracts.

However, the facility/organization did **not complete modifications** to appropriate contracts or did **not review** whether contractors fulfilled defined roles and responsibilities.

Ⓓ The facility/organization **established a procedure** to identify appropriate contracts; **identified appropriate contracts** and the contractors' roles and responsibilities under the EMS; and **EMS requirements and defined roles and responsibilities were included** in all appropriate contracts. The facility/organization **reviewed the contractor activities** and **determined the status of contractors' fulfillment** of their defined roles and responsibilities during this reporting period.

7. Evaluation of Compliance with Regulatory Requirements

Note: Executive Order 13423 requires that each agency establish programs for environmental compliance review and audit. Furthermore, the Instructions for Implementing Executive Order 13423 establish that the EMS shall be used to support compliance with environmental regulations.

In FY 2009

A. During this reporting period or previously, the facility/organization **did not establish** as part of the facility/organization's EMS, **a program for an environmental compliance** review and audit.

- B. During this reporting period or previously, the facility/organization **established** as part of the facility/organization's EMS, **a program for an environmental compliance** review and audit that includes:
- (a) Procedures to identify and account for applicable legal and other requirements,
 - (b) Protocols to periodically evaluate compliance with those applicable legal and other requirements, including the frequency of compliance evaluations, and
 - (c) A process or system for implementing corrective action based on that evaluation.

AND

The facility/organization has **identified applicable legal and other requirements**.

However, the facility/organization **has not implemented the protocols to evaluate compliance**, or the process or system to implement **corrective action** based on compliance evaluations.

- C. During this reporting period or previously, facility/organization **established** as part of the facility/organization's EMS **an environmental compliance program** that includes:
- (a) Procedures to identify and account for applicable legal and other requirements,
 - (b) Protocols to periodically evaluate compliance with those applicable legal and other requirements, including the frequency of compliance evaluations, and
 - (c) A process or system for implementing corrective actions based on that evaluation.

AND

The facility/organization has **identified applicable legal and other requirements**.

AND

The facility/organization has **conducted evaluations of compliance** with applicable legal and other requirements.

However, the facility/organization **has not completed the compliance evaluation for the entire facility/organization** in accordance with the program established frequency, or **has not initiated corrective actions** for completed evaluations.

- Ⓓ. During this reporting period or previously, the facility/organization **established** as part of the facility/organization's EMS **an environmental compliance program** that includes:
- (a) Procedures to identify and account for applicable legal and other requirements,
 - (b) Protocols to periodically evaluate compliance with those applicable legal and other requirements, including the frequency of compliance evaluations, and
 - (c) A process or system for implementing corrective actions based on that evaluation.

AND

The facility/organization has **identified applicable legal and other requirements.**

AND

The facility/organization has **completed evaluations of compliance** with applicable legal and other requirements for the entire facility/organization, in accordance with the established frequency.

AND

Corrective actions have been initiated, scheduled or completed.

8. Management Review

The Instructions for Implementing Executive Order 13423 require that “Once implemented, an EMS shall be reviewed and updated annually or more frequently, as appropriate, by senior leadership accountable for implementation of that EMS.” [§ II.A.(2), page 7]

*The purpose of this review (according to ISO 14001:2004) is to ensure the continuing suitability, adequacy and effectiveness of the EMS by presenting the appropriate information to senior management with authority over policy and resources for their **consideration and action**. The attention given to the management review process is a direct reflection of the commitment of the facility/organization to continual improvement. The review should include “assessing opportunities for improvement and the need for changes to the environmental management system, including the environmental policy and environmental objectives and targets.”*

The review should be documented (for example: agenda, presentations, action items and actions taken).

In FY 2009

A. Formal **senior leadership review** of the EMS was **neither planned/scheduled nor conducted**.

B. Formal **senior leadership review** of the EMS was **planned/scheduled**, but was **not conducted**.

C. Formal senior leadership review of the EMS **was conducted**. However, recommendations for continual improvement were neither **addressed** nor proposed by top management.

Ⓓ Formal senior leadership review of the EMS **was conducted**, top management **responded to recommendations** or gave directions for continual improvement, and appropriate actions including modifications to elements of the EMS have been **initiated, scheduled or completed**.

Part IV: EMS Implementation Information

E.O. 13243 states, in Section 3, *Duties of Heads of Agencies*,

(I)n implementing the policy set forth in section 1 of this order, the head of each agency shall: ... (b) implement within the agency environmental management systems (EMS) at all appropriate organizational levels to ensure **(i) use of EMS as the primary management approach for addressing environmental aspects of internal agency operations and activities, including environmental aspects of energy and transportation functions, (ii) establishment of agency objectives and targets to ensure implementation of this order,** and (iii) collection, analysis, and reporting of information to measure performance in the implementation of this order; [*emphasis added*].

Likewise the Instruction for Implementing Executive Order 13423, in part II (A.), **Environmental Management Systems, Use of Environmental Management Systems**, states,

(E)ach agency shall, at all appropriate organizational levels, including agency, sub-agency, bureau, service, command, and/or facility, develop, **implement, and maintain an EMS to be used to identify and address agency environmental, transportation, and energy issues. ... The EMS objectives shall include the goals identified in Section 2 of the E.O.**

The Instruction goes on to state in (1) *Management framework*,

(T)he management system will serve as the management framework under which agencies and their facilities or organizations identify, manage, and improve the sustainable practices identified in Section 2 of the E.O. and identify and collect performance measurement information to address the reporting requirements of Section 3(g) of the E.O. EMS also shall be used to support compliance with environmental and energy regulations, to enable the prevention of pollution and efficient energy management, and to support other objectives identified by the organization [*emphasis added*].

The questions in this Part reflect the relationship identified in the Executive Order and Implementing Instruction between an EMS and the various programs that already respond to, or are being developed to respond to, the sustainable practices in Section 2 of the E.O. Responses to these questions **are not** scored as part of the agency EMS scorecard process.

1. Energy Use

- a. Has an assessment of the facility's/organization's energy use been conducted? Yes No
- b. Is energy use identified as a 'significant aspect'? Yes No

- c. Have objectives and targets been established to address energy use? Yes No
- d. Are these objectives and targets included in the EMS? Yes No
- e. Have plans and programs been implemented to address energy use? Yes No
- f. Are these plans and programs included in the EMS? Yes No

2. Greenhouse Gas Emissions

- a. Has an assessment of the facility's/organization's greenhouse gas emissions been conducted? Yes No
- b. Are greenhouse gas emissions identified as 'significant aspects'? Yes No
- c. Have objectives and targets been established for greenhouse gas emissions? Yes No
- d. Are these objectives and targets included in the EMS? Yes No
- e. Have plans and programs been implemented to address greenhouse gas emissions? Yes No
- f. Are these plans and programs included in the EMS? Yes No

3. Renewable Energy Use

- a. Has an assessment of the facility's/organization's renewable energy use been conducted? Yes No
- b. Is renewable energy use identified as a 'significant aspect'? Yes No
- c. Have objectives and targets been established for renewable energy use? Yes No

- d. Are these objectives and targets included in the EMS? Yes No
- e. Have plans and programs been implemented to address renewable energy use? Yes No
- f. Are these plans and programs included in the EMS? Yes No

4. Water Use

- a. Has an assessment of the facility's/organization's water use been conducted? Yes No
- b. Is water use identified as a 'significant aspect'? Yes No
- c. Have objectives and targets been established for water use? Yes No
- d. Are these objectives and targets included in the EMS? Yes No
- e. Have plans and programs been implemented to address water use? Yes No
- f. Are these plans and programs included in the EMS? Yes No

5. Purchasing

- a. Has an assessment of the facility's/organization's purchasing practices been conducted? Yes No
- b. Are environmental aspects associated with purchasing identified as 'significant aspects'? Yes No
- c. Have objectives and targets been established for aspects associated with purchasing practices? Yes No
- d. Are these objectives and targets included in the EMS? Yes No

- e. Have plans and programs been implemented to address purchasing practices? Yes No
- f. Are these plans and programs included in the EMS? Yes No

6. Solid Waste Generation

- a. Has an assessment of the facility's/organization's solid waste generation been conducted? Yes No
- b. Is solid waste generation identified as a 'significant aspect'? Yes No
- c. Have objectives and targets been established to address solid waste generation? Yes No
- d. Are these objectives and targets included in the EMS? Yes No
- e. Have plans and programs been implemented to address solid waste generation? Yes No
- f. Are these plans and programs included in the EMS? Yes No

7. Purchasing and Using Toxic or Hazardous Chemicals

- a. Has an assessment of the facility's/organization's practices for purchasing and using toxic or hazardous chemicals been conducted? Yes No No purchasing or use of toxic or hazardous chemicals
- b. Is purchasing and using toxic or hazardous chemicals identified as a 'significant aspect'? Yes No
- c. Have objectives and targets been established for purchasing and using toxic or hazardous chemicals? Yes No

- d. Are these objectives and targets included in the EMS? Yes No
- e. Have plans and programs been implemented to address purchasing and using toxic or hazardous chemicals? Yes No
- f. Are these plans and programs included in the EMS? Yes No

8. Construction/Lease/Operation/Maintenance of Buildings

- a. Has an assessment of the facility's/organization's practices related to construction/lease/operation/maintenance of buildings been conducted? Yes No
- b. Are the environmental aspects associated with construction/lease/operation/ maintenance of buildings identified as 'significant aspects'? Yes No
- c. Have objectives and targets been established for aspects associated with construction/lease/operation/maintenance of buildings? Yes No
- d. Are these objectives and targets included in the EMS? Yes No
- e. Have plans and programs been implemented to address aspects associated with construction/lease/operation/maintenance of buildings? Yes No
- f. Are these plans and programs included in the EMS? Yes No

9. Vehicle Fleet Use/Petroleum Products Use

- | | | | | | |
|---|-------------------------------------|-----|--------------------------|----|--|
| a. Has an assessment of the facility's/organization's vehicle fleet use/petroleum product use been conducted? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> No fleet or petroleum product use |
| b. Are vehicle fleet use/petroleum products use identified as 'significant aspects'? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | |
| c. Have objectives and targets been established for vehicle fleet use/petroleum product use? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | |
| d. Are these objectives and targets included in the EMS? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | |
| e. Have plans and programs been implemented to address vehicle fleet use/petroleum product use? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | |
| f. Are these plans and programs included in the EMS? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | |

10. Purchase/Use/Disposal of Electronic Equipment

- | | | | | |
|---|-------------------------------------|-----|--------------------------|----|
| a. Has an assessment of the facility's/organization's purchase/use/disposal of electronic equipment been conducted? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| b. Are purchase/ use/disposal of electronic equipment identified as 'significant aspects'? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| c. Have objectives and targets been established for purchase/use/disposal of electronic equipment? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| d. Are these objectives and targets included in the EMS? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| e. Have plans and programs been implemented to address purchase/use/disposal of electronic equipment? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| f. Are these plans and programs included in the EMS? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |

11. Environmental Regulatory Compliance

- a. Has a compliance assessment of the facility's/organization's regulated products, activities and services been conducted? Yes No
- b. Is environmental regulatory compliance identified as a factor in determining 'significant aspects'? Yes No
- c. Have objectives and targets been established for environmental regulatory compliance? Yes No
- d. Are these objectives and targets included in the EMS? Yes No
- e. Have plans and programs been implemented to address environmental regulatory compliance? Yes No
- f. Are these plans and programs included in the EMS? Yes No

Part V: EMS Experiences

1. EMS Best Practices / Lessons Learned:

- The EMS quarterly newsletter continues to be an asset with regards to employee awareness.

2. EMS Challenges:

- Committee participation continues to diminish. It has become challenging to meet all the designated goals/targets for the year with little or no help from the committee members. There is currently no accountability in performance standards for committee members.
- EMS operation through Collateral Duty assignment has proven too burdensome for a location this large.
- Communication between Administration, Maintenance, and the EMS Coordinator is a major challenge as we are a large location with three separate research units. Many EMS related improvements/changes that are made are not reported to the EMS Coordinator/Committee.

3. External Communication:

- As a location, we continue to exchange ideas and information with the Department of Homeland Security's Federal Law Enforcement Training Center (FLETC) in Glynco, GA. The partnership that we have formed with FLETC has proven to be beneficial for the development of both our EMS programs.

4. Highest Priority Aspects:

- Priority Chemical Reduction
- Use/Disposal of Hazardous Chemicals
- Generation of Waste (Hazardous, Universal, Solid)

5. EMS Benefits to Agency Mission:

- The priority chemical reduction effort, primarily mercury reduction, benefits the mission of the location by properly disposing of items that could potentially involve expensive cleanup procedures should the mercury ever spill or cause contamination.
- The replacement of old thermostats with newer, programmable models saves money on heating and cooling costs.