

Contact Person	Dan Kayser, 294-7923	Revision	5.0
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Environmental Aspects Procedure

The Ames Laboratory Environmental Aspects Procedure provides a method for identification of the Laboratory's aspects that impact the environment. It is used to rank the impact of each aspect so that objectives and targets can be set, as required by the Laboratory's Environmental Management System (EMS). The EMS is required per DOE O 450.1A.

1.0 APPROVAL RECORD

- Approved by: Facilities & Engineering Services Manager (Mark E. Grootveld)
- Approved by: Procurement & Property Manager (Andrea L. Spiker)
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- Approved by: Associate Laboratory Director for Sponsored Research Administration (Debra L. Covey)
- Approved by: Assistant Director for Scientific Planning (Cynthia J. Jenks)
- Approved by: Chief Research Officer (Duane D. Johnson)
- Approved by: Interim Deputy Director (David P. Baldwin)
- Approved by: Interim Director (Thomas A. Lograsso)

The official approval record for this document is maintained in the Training & Records Management Office, 151 TASF.

2.0 REVISION/REVIEW INFORMATION

The revision description for this document is available from and maintained by the author.

3.0 PURPOSE AND SCOPE

The Environmental Management System Steering Committee (EMSSC) will use this procedure to initially identify and rank, the Laboratory's environmental aspects (e.g. electricity usage and paper usage), using the Environmental Aspects and Impacts Scoring Form (Form 10200.145). Once this has been completed, existing systems (see section 6.0) will be utilized to identify any potentially new aspects. This procedure may also be used to re-rank current aspects as needed (e.g. changes in regulations, mission, new DOE Orders, etc.).

Definitions

Environmental Aspect. An element of the Laboratory's activities, products or services that can interact with the environment (Aspect = Cause).

Environmental Impact. Any change in the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products, or services (Impact = Effect).

Environmental Management System (EMS). A continual cycle of planning, implementing, reviewing and improving the actions that an organization takes to meet its environmental obligations.

Environmental Management System Steering Committee (EMSSC). A chartered group consisting of employees from the Science and Technology Division, Facilities & Engineering Services, Purchasing and Property Services and Environment Safety Health and Assurance.

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ESH&A. Environment, Safety, Health and Assurance.

ISO 14001. A widely accepted, official international standard for environmental management systems, released by the International Organization for Standardization.

Objective. A goal that is consistent with the Laboratory’s environmental policy, priority environmental aspects, and applicable environmental regulations.

Target. A detailed performance requirement related to and supporting a specific objective. Such targets feature measurable parameters and timelines for attainment.

4.0 ROLES AND RESPONSIBILITIES

4.1. Upper Management (Ames Laboratory Executive Council):

Upper management will determine which objectives and targets to choose based on the EMSSC’s recommendations. Upper management will assign objectives and targets to the appropriate personnel as necessary. If funding is required to achieve approved objectives and targets then upper management will allocate the appropriate resources.

4.2 ESH&A Manager:

The manager will ensure there are adequate resources necessary to support ESH&A’s role in meeting the objectives and targets of this procedure.

4.3 Environmental Specialist:

The specialist will chair the EMSSC. The Environmental Specialist is a member of the ESH&A staff.

4.4 Facilities & Engineering Services:

Facilities & Engineering Services (F&ES) is responsible for managing the Laboratory’s energy and water resources and maintaining the Laboratory’s Site Sustainability Plan, which outlines the Laboratory’s initiatives for meeting DOE sustainability goals. F&ES will have a representative on the EMSSC.

4.5 Purchasing & Property Services Manager:

The manager is responsible for participating on or appointing someone to represent the Purchasing & Property Services Office on the EMSSC and participate in committee meetings.

4.6 EMS Steering Committee (EMSSC):

The EMSSC is responsible for: **1)** Forming a registry (list) of environmental aspects for the Laboratory, **2)** Ranking the impact of each aspect, **3)** Recommending objectives and targets to upper management, including suggested responsibility designations, **4)** Maintaining an up-to-date list of aspects, **5)** Reviewing the effectiveness of the EMS.

5.0 PREREQUISITE ACTIONS AND REQUIREMENTS

Members of the EMSSC will receive materials (e.g. documents, links to web sites, discussions, examples, etc.) from the Environmental Specialist that will familiarize them with the EMS, including the listing and ranking of environmental aspects (e.g. electricity and paper usage). ISO14001 and formal EMS training is preferred for the Environmental Specialist or the chairperson of the EMSSC.

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6.0 PROGRAM INFORMATION

The Laboratory's EMS covers many aspects, therefore there are several systems in place that capture activities that may affect the Laboratory's environmental aspects, targets, and goals. The Readiness Review Procedure (10200.010) can act as a check for EMS implications but the following systems are at the forefront of determining potential effects to the Laboratory's EMS. Each system is represented on the EMSSC.

6.1 Energy and Water Management:

Activities that could have an effect on energy and water management are screened through the Facilities & Engineering Services (F&ES). The service order requisition (SOR) (Form 46200.036) is the primary mechanism for reviewing projects that could have an energy or water impact on the Laboratory's EMS aspects/goals and DOE goals. F&ES has developed a Site Sustainability Plan to address the requirements of EO 13423 and DOE O 430.2B, and is therefore an appropriate body for reviewing energy and water management aspects.

6.2 Environmentally Preferred/Sustainable Acquisition:

Requisitions are reviewed through CostPoint, the Laboratory's electronic requisition system. Requisitions are reviewed by purchasing agents for preference to environmentally preferred products. The Purchasing Department's terms and conditions contain Energy Star and energy efficient language. Credit card users are provided DOE Sustainable Acquisition Training. Data is captured for each fiscal year and reported to DOE.

6.3 Pollution Prevention and Management of Toxic and Hazardous Materials:

Chemical requisitions are reviewed for safety and environmental concerns by ESH&A. Alternatives are recommended if the chemical poses significant safety, health or environmental risks. The Laboratory doesn't meet Emergency Planning & Community Right-to-Know Act (EPCRA) reporting thresholds; however, the Laboratory voluntarily reports to the Iowa EPCRA Coordinator as a best management practice. The Laboratory's Annual Site Environmental Report (http://www.ameslab.gov/esh/ESH&A_Documents/reportlist.html) provides more information on chemical reporting. Chemical users are encouraged to use the Laboratory's chemical inventory database to find chemicals instead of purchasing chemicals when only a small amount is needed. Chemical users are also required to take the Laboratory's Hazardous Waste Generators institutional training (AL-073), which teaches users how to properly manage waste in laboratories and encourages recycling.

6.4 Solid Waste Diversion and Recycling:

The Laboratory recycles white paper, mixed paper, fluorescent lamps, scrap metal, Styrofoam, batteries, phone books, oil, laboratory glass, newspaper, cardboard, computers, monitors, and food and beverage containers. Recycling data is sent to the DOE at the end of each fiscal year. The Laboratory promotes the use of its chemical inventory database and the re-issuing of unused chemicals.

6.5 Sustainable Design/High Performance Buildings:

The Laboratory will seek LEED (Leadership in Energy and Environmental Design) Gold standard certification for any new buildings. The Laboratory's Site Sustainability Plan addresses this topic in greater detail.

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6.6 Vehicle Fleet Management:

The Laboratory is exempt from vehicle fleet management as it does not have twenty or more vehicles in its fleet. The Laboratory has four GSA vehicles. The Laboratory does utilize fuel containing 85% ethanol and will continue to seek alternatives as they become operationally and economically feasible.

6.7 Electronics Stewardship:

The Laboratory purchases EPEAT (Electronic Product Environmental Assessment Tool) certified designated electronic devices (i.e. computers, displays, televisions, and imaging equipment) as much as possible. There may be instances where an EPEAT certified designated electronic device does not meet the requirements and/or needs of a research activity. Designated electronic device purchases are reviewed for EPEAT compliance by ESH&A. Data on designated electronic device purchases are rolled up to DOE at the end of each fiscal year. Outdated/expired designated electronic devices and miscellaneous electronic equipment are sent offsite to an electronics recycler. Laboratory personnel are encouraged to use the Energy Star settings on their computers. The Laboratory's Information Systems baseline for setting up new computers includes enabling Energy Star features.

7.0 Performance

- Utilizing this procedure the EMSSC will identify and prioritize the Laboratory's environmental aspects and impacts.
- Each individual, from the EMSSC, will fill out the Environmental Aspects and Impacts Form, 10200.145.
- Aspects with the highest Overall-Significant-Rating (OSR) will be considered significant.
- The list of environmental aspects will be electronically stored on the Team drive at T:EMS/Aspects & Impacts Docs.
- An up-to-date list of aspects will be maintained.
- The EMSSC will recommend objectives and targets to upper management that support established DOE sustainability goals.
- The EMSSC will include suggested responsibility designations when recommending EMS objectives and targets to upper management.
- The EMSSC will provide cost estimates associated with fulfilling objectives and targets, that require funding, to achieve EMS targets, to upper management.
- The Ames Laboratory Executive Council will determine which EMSSC recommended objectives and/or targets are appropriate and which will be selected for implementation.

8.0 REFERENCES

- "ISO 14001 Environmental Certification Step by Step", A.J. Edwards, 2001
- College and University Environmental Management System Draft Guide, dated October 2001. <http://www.hss.energy.gov/nuclearsafety/env/ems/>.