



***ENVIRONMENTAL MANAGEMENT
SYSTEMS (EMS) MANUAL***

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Scope

The Virginia Department of Environmental Quality (DEQ) has implemented an Environmental Management System (EMS) based on ISO 14001 criteria; The International and American National Environmental Management System Specification.

<http://www.deq.virginia.gov/ems/iso14001.html>

The current scope of the DEQ EMS program covers internal operations, which is designed to improve DEQ's environmental performance as an agency. This manual contains the required legal and other requirements and appropriate ISO 14001 elements, and descriptions of the core elements of the DEQ EMS. Directions or links to related documents and information are provided where appropriate.

Agency Mission Statement

The Department of Environmental Quality protects and enhances Virginia's environment, and promotes the health and well being of the citizens of the Commonwealth.

Environmental Policy

<http://deqnet/docs/ems/EnvPolicyPaylor252007veep.pdf>

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1. Environmental Aspects, Objectives and Targets, and Environmental Management Programs

1.1. Environmental Aspects & Impacts :

The EMS Project Team shall meet annually to discuss, re-evaluate and re-prioritize the environmental aspects DEQ has identified to have an impact on the environment. For further information, refer to the link provided.

<http://deqnet/documents/index.asp?path=/docs/ems/CurrentDEQEMSProcedures>

1.2. Objectives and Targets:

Objectives include: minimizing waste generation; maximizing recycling; maximizing green procurement; conserving water; maximizing travel efficiencies (renewable fuels, hybrid vehicles, alternative travel options and minimizing travel miles); and, reducing energy consumption. The target/goal for reducing energy by 2012 will be 15% based upon a 2006 baseline, as well as an additional 5% established by Executive Order 82. Other objectives and targets may be identified during the annual EMS review.

<http://www.deq.virginia.gov/ems/pdf/implement.pdf>

1.3. Environmental Management Plans:

The DEQ Implementation Plan is a compilation of activities, exercises, and procedures that are designed to improve environmental performance by DEQ. The plans address activities to be conducted in order to avoid occurrence of and to reduce environmental impact from DEQ operations that have been identified to have significant environmental aspects.

http://deqnet/docs/ems/CurrentDEQEMSProcedures/DEQ_Water_Conserv_Plan.pdf

http://deqnet/docs/ems/Facility_Energy_Management_Policy_2008_Final8-7-08.pdf

2. Legal and Other Requirements

<http://deqnet/docs/ems/CurrentDEQEMSProcedures/IdOfLegalMandates.pdf>

<http://deqnet/docs/ems/CurrentDEQEMSProcedures/LocalOrdinanceReq.pdf>

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3. Structure and Responsibility

The following roles, responsibilities, and authorities govern the operation of DEQ's EMS:

<http://deqnet/docs/ems/OfficialDEQEMSDocuments/RolesRespOfEMSMgtTeam.pdf>

http://deqnet/docs/ems/OfficialDEQEMSDocuments/EMS_Prog_Team_Charter.pdf

4. Training, Awareness, and Competence

4.1 General Awareness Training

DEQ employees shall receive general awareness EMS training at the time of new hire orientation. All DEQ employees will receive training through the LMS or by the Regional and Central office representatives on an annual basis.

<http://deqnet/documents/index.asp?path=%2Fdocs%2Fems%2FEMSTrainingMaterials/AgencywideRequiredTraining> (required training)

4.2 Significant Impact Training

The Project Team, Leadership Team, and Training Manager shall identify and implement training and competency needs for personnel whose work can cause a significant impact on the environment.

<http://deqnet/documents/index.asp?path=%2Fdocs%2Fems%2FEMSTrainingMaterials/TaskSpecificTraining> (task specific)

4.3 Training Records

Training records shall be maintained by the Learning Management System (DEQ KC) in accordance with Virginia's record retention policy for state agencies.

5. Communication

5.1. Internal Communication

In line with its Environmental Policy commitment of "encouraging open communication among all ... DEQ employees," DEQ will communicate to all levels and functions within DEQ relevant information about major areas of EMS activity, including:

- Environmental aspects and impacts

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- Environmental objectives and targets
- Environmental management roles and responsibilities
- DEQ’s performance compared to its environmental objectives and targets
- Environmental policies and procedures

The **EMS Manager** and the Public Affairs Manager shall be responsible for ensuring that this procedure is carried out through use of the internal communication systems of the agency.

5.2. External Communication

In line with DEQ’s Environmental Policy commitment to “*encourage environmental stewardship and foster improved environmental collaboration with stakeholders,*” DEQ will maintain information concerning EMS on the DEQ public website.

5.3. Receipt of External Communications

Any employee receiving a communication about the **EMS** or DEQ’s environmental performance from an external party shall confer with the **EMS Manager** for a decision on response. The **EMS Manager** shall make all such responses on behalf of the DEQ, or delegate the response to a member of the EMS Project Team and shall maintain records of all incoming environmental communications, including non-written communications, and of their disposition.¹

5.4 Outreach

It is appropriate for DEQ to initiate community outreach efforts on its Environmental Policy and the **EMS**. Outreach efforts shall be the responsibility of the **EMS Project Team** which shall establish outreach objectives when establishing DEQ’s other Environmental Objectives and Targets. Such outreach objectives shall be consistent with the Environmental Policy. .

5.5. Website

DEQ will maintain information on its website about the Environmental Policy, the **EMS**, its environmental aspects and impacts, and its environmental objectives and targets. The **EMS Manager**, in collaboration with the Public Affairs Manager, shall be responsible for establishing and maintaining this information.

6. EMS Documentation and Document Control and Records

6.1. EMS Documentation

This **EMS Manual** describes the core elements of the **EMS** and provides direction to related materials. ISO 14001 criteria, in its various sections, require that, at a minimum, the following policies, procedures, and delegations of authority be documented:

- The Environmental Policy
- The Environmental Objectives and Targets

¹ Responses on requests for information about the EMS and DEQ’s environmental performance shall be made by the Public Affairs Manager.

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- **EMS** Roles, Responsibilities, and Authorities
- Description of the Core Elements of the **EMS**
- Operational Procedures whose absence could result in deviations from the Environmental Policy or failure to achieve environmental objectives and targets
- Procedures to monitor and measure key characteristics of activities and operations that can have a significant impact on the environment
- Procedure for periodically evaluating compliance with environmental regulations
- Results of top management reviews of the **EMS**

This **EMS Manual** shall either contain these policies, procedures, and delegations of authority within its text or provide direction to users as to where they are contained.

Maintenance of the **EMS Manual** shall be the responsibility of the EMS Manager and staff.

6.2. EMS Document Control

The **EMS Manager** shall maintain and control the *EMS Manual* and all other documents associated with it, such as the environmental objectives and targets, management plans to achieve them, and records of progress toward achievement. In maintaining and controlling the *EMS Manual*, the **EMS Manager** shall ensure that the current *EMS Manual* and its associated documents are posted on the DEQNET.

The **EMS Manager** shall preserve an original electronically of all documents and changes, establish and maintain a record of all document changes, and ensure that all documents are numbered, dated with dates of origination or revision, and, where necessary, signed and approved.

6.3 EMS Records

Section 2 of this manual requires that the Office of Policy shall maintain an archive of relevant environmental laws, regulations, ordinances, and other requirements. Section 4 of this manual requires that the DEQ's Training Manager shall be responsible for maintaining records of training. Section 6.2 of this manual requires that the **EMS Manager** shall maintain a record of all incoming external environmental communications and of their disposition.

In addition to these recordkeeping requirements, the **EMS Manager** shall maintain records of findings and recommendations from **EMS** and regulatory compliance audits and documents, exhibits, and minutes of management reviews. All **EMS** records shall be permanently maintained unless and until Virginia's record retention policy establishes a lesser requirement.

7. Operational Controls: DEQ's Standard Operating Procedures concerning EMS activities

7.1 Activities & Operations :

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Each February the DEQ EMS Team will identify operating activities that may have significant environmental impact. A review of the potential impacts will involve the EMS Team and the appropriate manager(s).

7.2 Goods & Services Used by DEQ

Each February the EMS Team will review the goods and services involved with the Department's operation. Potential significant environmental impacts found from these operations are to be discussed with the providers (suppliers and contractors). DEQ will encourage the reduction of environmental impact from these providers.

7.3. Emergency Preparedness and Response

The EMS project Team, DEQ Safety Director and DEQ LT will continuously review and improve the Agency's emergency preparedness/response plans. DEQ's COOP should be included in this review. Periodic tests of the plans will occur as deemed appropriate by the DEQ LT.

8. Monitoring and Measurement

8.1. Monitoring and Measurement of Significant Impact Activities and Operations

Semiannually each Office Manager reports to the EMS Manager on waste management, water and energy conservation, and any other additional activities related to Executive Order 48 and 82. The EMS Manager evaluates this information to determine whether DEQ is meeting our EMS objectives and targets. The standardized reporting form is based on DEQ's environmental aspects and impacts. The monitoring and measurement activities established shall become Environmental Objectives and Targets for the upcoming fiscal year.

8.2. Evaluation of Compliance with Legislation and Regulations

The **DEQ LT** shall be responsible for evaluating actual compliance with relevant environmental laws and regulations. The **EMS Manager** shall assist the **LT** in fulfilling this responsibility by arranging for the conduct of environmental regulatory compliance audits as appropriate by a team of internal auditors in October of each year.

To the extent reasonably practicable, internal auditors shall be independent of people and activities audited. Internal auditors shall be competent by virtue of training and experience to perform environmental regulatory compliance audits. Audit reports shall be submitted to the **EMS Management Team** for its use in conducting the management review of the **EMS**.

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9. Nonconformance and Corrective or Preventive Action

9.1 General

As a result of the annual audit, semi-annual reporting or continuous internal checks, the EMS Project Team shall investigate all instances of nonconformance with the EMS and take appropriate mitigating, corrective, or preventive action. The objective of nonconformance investigations shall be to identify the root causes of actual or potential nonconformances. Incidents of nonconformance shall be reported in writing to the Director and the EMS Manager along with all follow up actions within 30 days of discovery. Events that constitute a nonconformance sufficient to automatically trigger a nonconformance investigation include:

- Adverse findings of an EMS or regulatory compliance audit;
- Discovery of noncompliance with an environmental law, regulation, ordinance, executive order or other requirement;
- Occurrence of a sudden, catastrophic event;
- Any incident that, except for fortuitous circumstances, could have resulted in a sudden, catastrophic event;
- Failure to achieve environmental objectives and targets;
- Material noncompliance with the Environmental Policy; and
- Such other nonconformances as might from time to time be identified.

9.2. Nonconformances within a Region or the Central Office

If a Regional Director or the Agency Office Team documents an EMS nonconformance within her/his jurisdiction, the Regional Director or Agency Office Team Lead shall establish an investigative committee appropriate to the circumstances of the nonconformance and take such mitigating, corrective, or preventive actions as are warranted after receiving the report of the committee.

9.3 Agency-wide Nonconformances

If the EMS Manager documents an EMS nonconformance involving the agency as a whole or more than one Region and/or the Central Office, the EMS Manager shall establish an investigative committee appropriate to the circumstances of the nonconformance and take such mitigating, corrective, or preventive actions as are warranted after receiving the report of the committee.

9.4. Individual Employee Nonconformance

If it is determined that an employee has intentionally violated the Environmental Policy or any of the EMS, is the cause of an EMS nonconformance, or has not abided by the EMS requirements, the Agency will apply the Department of Human Resource Management (DHRM) Policy 1.60, *Standards of Conduct*, appropriately to the circumstance.

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10 Environmental Management System Audits

The **EMS Project Team** shall be responsible for ensuring that the **EMS** conforms to the appropriate requirements of ISO 14001 and DEQ's Environmental Excellence Program requirements and is properly implemented and maintained. The **EMS Project Team** shall verify that this responsibility is effectively carried out by arranging for **EMS** audits by a five-person team of internal auditors in October of each year.

To the extent reasonably practicable, internal auditors shall be independent of people and activities audited. Internal auditors shall be competent by virtue of training and experience to perform **EMS** audits. Audit reports shall be submitted to the **EMS Management Team** for its use in conducting a comprehensive management review of the **EMS** in November.

11 Management Review

The **EMS Management Team** shall be kept up to date by the EMS Manager on any new **EMS** developments as they occur and on **EMS** objectives and targets on at least a semi-annual basis. After each annual **EMS** audit the **EMS Management Team** shall conduct a comprehensive review of the **EMS** to ensure its continuing suitability, adequacy, and effectiveness. Minutes of the review meeting shall be taken in order to document all issues discussed, decisions made, and actions directed. The **EMS Manager** shall permanently maintain a record of all documents, exhibits, and minutes of the management review and share them with the **EMS Project Team** for discussion.

The **EMS Management Team** shall determine how the **EMS** has performed by evaluating:

- The appropriateness of the Environmental Policy to the nature, scale, and environmental impacts of DEQ's activities, products, and services;
- The effectiveness of the **EMS** in accomplishing top management's objectives for an **EMS**;
- Changing circumstances which influence the suitability, effectiveness, or adequacy of the **EMS**;
- The adequacy of roles, responsibilities, authorities, and procedures to accomplish the objectives of the **EMS**;
- The extent to which environmental objectives and targets have been achieved;
- The adequacy of the human, financial, and technological resources provided by management to accomplish the implementation and control of the **EMS**;
- The results of the determination of which environmental laws, regulations, executive orders and ordinances DEQ is subject;
- The results of environmental regulatory compliance audits and **EMS** audits;
- The results of monitoring and measuring activities and operations associated with all environmental aspects;
- The achievement of **EMS** outreach objectives in line with the Environmental Policy;

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- The extent to which the DEQ meets the requirements for an Environmental Enterprise under DEQ's Environmental Excellence Program; and
- The extent to which the **EMS** has been improved in the current execution cycle.

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