

Universidad de Puerto Rico
Recinto Universitario de Mayagüez
JUNTA ADMINISTRATIVA

CERTIFICACIÓN NÚMERO 11-12-058

La que suscribe, Secretaria de la Junta Administrativa, del Recinto Universitario de Mayagüez, de la Universidad de Puerto Rico, **CERTIFICA** que en reunión ordinaria celebrada viernes, 12 de agosto de 2011, este organismo **APROBÓ** el **ENVIRONMENTAL MANAGEMENT SYSTEM OFFICE MANUAL**, el cual acompaña y forma parte de esta certificación.

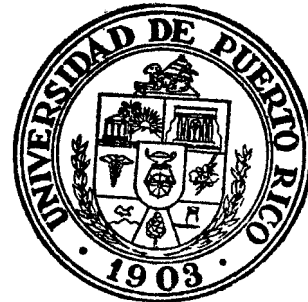
Además, este Cuerpo **ENMENDÓ** la Certificación número 06-07-157, de la Junta Administrativa, para disponer que dicha oficina estará adscrita a la Oficina de Salud y Seguridad, del Decanato de Administración.

Y para que así conste, expido y remito la presente certificación a las autoridades universitarias correspondientes bajo el Sello de la Universidad de Puerto Rico, en Mayagüez, Puerto Rico, al día primero del mes de septiembre del año dos mil once.

Judith Ramirez Valentin
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Secretaria

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Anejos (10 páginas)



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1 Scope

The University of Puerto Rico at Mayaguez Environmental Management System will be focused on managing the purchase, storage and use of hazardous materials; and the generation and management of hazardous materials and waste in all the laboratories of the UPRM including the laboratories in the eleven Agricultural Experimental Stations located throughout Puerto Rico.

1.1 Site description

The University of Puerto Rico Mayaguez Campus is located on Boulevard Alfonso Valdes #252; PO Box 9000 in Mayaguez, Puerto Rico. It is a land grant institution with a population composed of 12,136 students, 1,336 regular staff members and 1,026 members of the educational staff. UPR Mayaguez is a co-educational, bilingual, and non-sectarian school comprising the Colleges of Agricultural Sciences, Arts and Sciences, Business Administration, Engineering, and the Division of Continuing Education and Professional Studies. UPR Mayaguez conducts a wide diversity of education and research activities that impact the environment such as water use, energy consumption, solid waste generation, emissions from fuels, waste water and hazardous materials/wastes.

2 Purpose

The objective of this document is:

- a) Describe the elements of the University of Puerto Rico at Mayaguez Environmental Management System.
- b) Provide the appropriate links to relevant documentation.

3 Definitions

Same definitions detailed in the document “UPRM Environmental Management System Description” at the University Website will be applied in this manual.

Related Documents / Procedures:
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| <ul style="list-style-type: none"> • EMS-d-01 UPRM Environmental Management System Description |
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4 Environmental Management System Requirements

4.1 General Requirements

The UPRM Environmental Management System will be focused on managing the environmental impact of the use of materials required to fulfill the academic mission of UPRM.
The environmental system structure as described in this manual is consistent with the UPRM Environmental Policy.

4.2 Environmental Policy

The University of Puerto Rico at Mayaguez has developed an Environmental Policy. The policy is communicated using the Internet and is available in the University’s website.

All new teaching employees and students will be informed about environmental policy during new teaching employee training and student orientation week.

Related Documents / Procedures:

- EMS-d-02 UPRM Environmental Policy

4.3 Planning

4.3.1 Environmental Aspects

Environmental aspects are those elements of UPRM activities, products and services that can interact with the environment. An appropriate understanding of the environmental aspects and impacts helps the campus to set its environmental improvement objectives and to give priority to them.

The UPRM EMS Team has decided that the most significant environmental impacts are created by the use of hazardous materials and the generation of hazardous wastes. This decision is based on the potential risk caused by the improper management of hazardous materials and wastes. This risk is based on the consequences of exposure to users, to members of the UPRM Community, to the residents of the City of Mayaguez, and to the environment itself. This is the reason why management of hazardous materials and wastes is the initial focus of the UPRM EMS.

A documented procedure will be established to evaluate UPRM environmental aspects and impacts. The initial assessment and its revisions considers, as a minimum:

- a) Specific significant environmental aspects of UPRM operations by using the EMS Aspects / Impacts tool. The result of this exercise will be reviewed and updated annually by the EMS Manager of UPRM, using EMS- Environmental Management System Aspects, Objectives and Targets and Management Program procedure. UPRM management with the EMS and EHS offices assistance will decide which of these significant environmental significant aspects should be considered to assign environmental objectives and targets.

Related Documents / Procedures:

- EMS-d-03 EMS Aspects / Impacts Tool
- EMS-d-04 Environmental Significant Aspect, Objectives and Targets List
- EMS-01 Environmental Management System Aspects, Objectives and Targets and Management Program Procedure

4.3.2 Legal and other requirements

The EHS Office (and EMS Office) is responsible for monitoring and identifying changing or new environmental legislation as it affects the site, on an on-going basis. The relevant regulations will be identified on the Environmental Legal Aspects Table. The procedure will be defined in the Legal Aspect Procedure.

Regulatory and other requirements are communicated by EHS / EMS staff (via Management Review, staff meetings, reports, emails, etc.) to the management of departments that are responsible for operations subject to these requirements.

Related Documents / Procedures:

<ul style="list-style-type: none"> • EMS-d-05 Environmental Legal Aspects Table
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4.3.3 Objectives and targets

UPRM will establish and maintain documented environmental objectives and targets consistent with site activities and requirements. Objectives and targets are consistent with Environmental Policy, including the commitment to pollution prevention.

UPRM management will identify and approve the Objectives and Targets from the significant environmental aspects selected. It is the responsibility of UPRM management the achievement of objectives and targets.

The goals and objectives established for the system are the following:

- a) Develop a baseline of specific materials currently being used in the UPRM laboratories and generating/handling waste areas.
- b) Develop a tracking system for such materials from purchasing to final disposal.
- c) Evaluate and quantify the efficiency of the system.
- d) Evaluate use, reuse and recycling opportunities.
- e) Evaluate Pollution Prevention, Pollution Reduction and impact minimization opportunities.
- f) Quantify waste disposal impacts.
- g) Analyze and implement hazardous chemicals storage and disposal reduction opportunities.
- h) Implement a self improvement management system for EMS revisions.

<p>Related Documents / Procedures:</p>
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| <ul style="list-style-type: none"> • EMS-01 Environmental Management System Aspects, Objectives and Targets and Management Program Procedure |
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4.3.4 Environmental Management Program

UPRM establishes and maintains the Environmental Management System Program for achieving objectives and targets. The objectives and targets list will be approved by UPRM management in a EMS Management Review meeting. The EMS Program will establish responsibilities, time and resources for each objective and target to reach their purpose.

The EMS representative or EMS Office director has the responsibility to review the implementation of the Environmental Management Program.

4.3.5 Change Management

For potential EHS issues that might arise while conducting business, procedures will be developed to ensure EHS issues are considered in planning and design of new or modified activities, including but not limited to: new construction, facilities modifications, and new chemical and equipment purchases.

<p>Related Documents / Procedures:</p>
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| <ul style="list-style-type: none"> • EMS-05 Contractor and Suppliers Communication Procedure • EHS-02 Hazardous Chemical Purchase Procedure • EHS-13 New Equipment Purchase Procedure |
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4.4 Implementation and Operation

4.4.1 Structure and responsibility

Roles, responsibilities and authorities are defined, documented and communicated in order to facilitate an effective EMS.

Top Management of UPRM has appointed the EMS Office director as the Environmental Management Representative. The EMS Manager has authority for:

- a) Implementing and maintaining the EMS in accordance with UPRM.
- b) Reporting to UPRM management on its environmental performance.
- c) Provide UPRM management with proposals and recommendations for improvements to the EMS.

UPRM Management will provide the appropriate finance, personnel and technical resources essential to the implementation and control of the EMS and compliance with environmental legal requirements.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EHS-d-06 EMS Organizational Chart

4.4.1.1 Deans

Faculty and Administrative Deans must guarantee that all departments follow the established Environmental Management System, resolve any audit findings as soon as possible, and evaluate the effectiveness of the Environmental Management System.

Deans are also responsible for ensuring that the campus and its operations comply with all EHS legal requirements.

4.4.1.2 Department Directors

Department directors must guarantee that all laboratories in the department follow the established Environmental Management System, that all laboratories in the department resolve audit findings as soon as possible, and evaluate the effectiveness of the Departmental Laboratory Management System.

4.4.1.3 Laboratory Supervisors

In the case of educational laboratories, the department that offers the course should designate a laboratory supervisor. In research laboratories, the supervisor is the researcher in charge of the project. Laboratory supervisors must ascertain that personnel working in the laboratory understand and implement the procedures involved in day to day management of hazardous materials and hazardous wastes, and that problems identified during the laboratory self-inspections and annual audits are resolved as soon as possible.

4.4.1.4 Environmental Management Representative

The environmental management representative is responsible for ensuring that following activities are carried out:

- a) Implementing and maintaining UPRM environmental management system in accordance with UPRM's requirements.
- b) Reporting to site management on the environmental management system performance.
- c) Providing management with proposals and recommendations for improving the EMS.
- d) Coordinating the agenda of the EMS Management review and ensuring the meetings are carried out at least biannually.
- e) Hosting EMS audit teams.

4.4.1.5 EHS Office

The EHS Office is responsible for identifying and establishing UPRM environmental regulatory requirements in coordination with the EMS Office. These requirements must then be communicated to faculty and departmental management.

4.4.1.6 EMS Teams

Members with specific EMS / EHS roles such Emergency Response Team and Environmental Internal Auditors will be designated through site functions.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-d-07 Emergency Response Team Position Plan • EMS-d-08 Environmental Internal Auditors Team Position Plan

4.4.2 Training, Awareness and Competence

UPRM will develop a procedure to identify environmental training requirements and provide and document it as appropriate. See EMS-02 Training, Awareness and Competence Procedure.

The EMS Office will maintain a procedure to make employees aware of those environmental issues required by UPRM EMS description. Training required to support environmental goals will be defined in the Environmental Matrix Curriculum.

Training need are identified, but not limited to the following:

- Introduction to a new equipment, process or product
- Major changes to the applicable procedures
- New Employees Orientation
- Training Plans

Competence will be evaluated, but not limited to the following: Performance Evaluation, Certification, Internal Audit results, and metric results.

Records of training and certification will be maintained.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-02 Training, Awareness and Competence Procedure • EMS-d-09 Environmental Matrix Curriculum

4.4.3 Communication

Internal communication between the various levels and functions on the campus will be done as described in the Environmental Communications Procedure. Internal communication tools used: Chematix, brochures, emails, Management Reviews and formal trainings.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-03 Environmental Communications Procedure

4.4.4 Environmental Management System Documentation

The manual covers all documentation requirements for UPRM environmental management system. UPRM will maintain in written and electronic form a description of the major elements of its EMS, with direction to related documents.

4.4.5 Document Control

Document control requirements will be established in the Document Control Procedure.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-04 Document Control Procedure

4.4.6 Operational Control

4.4.6.1 Operations

UPRM has identified those operations and activities associated with its environmental aspects in line with its objectives and targets. These environmental management procedures are updated according to changes in UPRM environmental significant aspects.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-d-04 Environmental Significant Aspect, Objectives and Targets List

Documented procedures are maintained where required by legal requirements or where the campus determines that a documented procedure is needed to prevent deviations from UPRM environmental policy, objective and targets. The following procedures, either existing or to be developed (if necessary), follow the regulation requirements when they are applicable.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EHS-03 Air Emissions Procedure • EHS-04 SARA Title III Compliance Procedure • EHS-04 Refrigerant Storage and Handling Procedure • EHS-06 Stormwater Procedure • EHS-07 Pest Control Procedure • EHS-08 Laboratory Management Procedure (LMP) • EHS-09 Biomedical Waste Handling Procedure • EHS-10 Electrical Transformers Procedure • EHS-11 Chemical Handling Procedure • EHS-12 Chemical Purchase Procedure • EHS-13 New Equipment Purchase Procedure • EHS-14 Radioactive Purchase and Handling Procedure • EHS-15 Storage Vessels Procedure • EHS-16 Environmental Noise Control Procedure • EHS-17 SPCC Procedure • EHS-18 Bomb Threat Emergency Procedure • EHS-19 Fire Emergency Procedure • EHS-20 Propane Gas Loading / Unloading Procedure • EHS-21 Liquid Nitrogen Loading / Unloading Procedure • EHS-22 Hurricane Procedure • EHS-23 Explosives Purchase Procedure • EHS-24 Explosives Handling and Storage Procedure • EHS-25 Pesticide Safety • EHS-26 Hazardous Waste Reduction Procedure • EHS-27 Emergency Response Plan • EHS-28 Respiratory Protection Procedure • EHS-29 Recycling Procedure • EHS-30 Sanitary License Renewal Procedure • EHS-31 Fire Department Certification Procedure

4.4.6.2 Supplied Goods and Services to Support Site Operations

UPRM determines specific procedures and/or requirements for the site operations suppliers and on-site contractors relative to the identified significant environmental aspects at the campus, and will communicate those procedures or requirements to the respective suppliers and contractors. These procedures will monitor the contractor activities and minimize their impact on campus employees, students, operations and property.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-05 Contractors and Suppliers Communications Procedure

4.4.7 Emergency Preparedness and Response

UPRM has established and maintains procedures to identify the potential for and respond to accidents and emergency situations and for preventing and mitigating the environmental impacts that may be associated with them.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EHS-17 SPPC Procedure • EHS-18 Bomb Threat Emergency Procedure • EHS-19 Fire Emergency Procedure • EHS-22 Hurricane Procedure • EHS-27 Emergency Response Plan

4.5 Checking and Corrective Action

4.5.1 Monitoring and Measurement

UPRM has a procedure to monitor and measure, on a regular basis, the key characteristics of its operations and activities that can have a significant impact on the environment. This includes the recording of controls and conformance with the organizations environmental objectives and targets, which is the attainment of metrics. Also periodical evaluation of compliance with relevant environmental legislation will be made by means of UPRM Compliance Verification Table.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-06 Environmental Monitoring and Control Procedures • EMS-d-10 UPRM Compliance Verification Table

4.5.2 Non conformance; corrective and preventive action

UPRM will establish the requirements for determining the causes of nonconformities and include in a documented procedure to define responsibility and authority for handling and investigating nonconformance, taking action to mitigate any impacts caused and for initiating and completing corrective and preventive action. Records of these non-conformance forms, their corrective and preventive actions are kept and maintained as specified in the Recordkeeping Procedure.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-07 Non conformance Report System Procedure

4.5.3 Records

UPRM will develop a procedure for the identification, maintenance and disposition of environmental records.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-08 Environmental Recordkeeping Procedure

4.5.4 EMS Audit

UPRM has a program and procedures for conducting periodic environmental management system audits in order to:

- a) Determine whether or not the environmental management system:
 - 1. Conforms to plan arrangements for EMS Management.
 - 2. Has been properly implemented and maintained.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-09 EMS Audit Procedure

4.6 Management Review

As part of their management responsibilities, the UPRM Administrative Board will at least on a biannual basis review the suitability, adequacy and effectiveness of the Environmental Management System. The reviews consider but are not limited to:

- a) Progress of environmental management program (quarterly EHS update including, training performance, environmental performance)
- b) Internal and external audit recommendations and non-conformances follow up
- c) Annual EMS objectives and targets
- d) EHS significant aspects
- e) New or emerging legislation. Legal aspects.

Not all the elements cited above will be covered in one single meeting, but in a series of meetings. However during the period of one year, the management team will review all the elements of the Environmental Management System. The minutes of the Management Review are kept at the EMS Office.

Related Documents / Procedures:
<ul style="list-style-type: none"> • EMS-10 EMS Management Review Procedure