



Alexandria University Strategy on waste disposal including Hazardous materials

Effective Date: 2022 *(to be reviewed 2024)*

Responsible Office: Environmental Affairs and Facilities Management Office

Introduction

Alexandria University is committed to maintaining a sustainable and safe campus environment by adopting comprehensive waste disposal practices. This document outlines the university's procedures for managing general and hazardous waste, aligning with national environmental regulations and international best practices.

This document underscores Alexandria University's commitment to sustainable and responsible waste management, safeguarding both the campus community and the environment.

Objectives

1. Ensure proper disposal of all waste generated on campus, minimizing environmental and health impacts.
2. Safeguard staff, students, and the community from risks associated with hazardous materials.
3. Promote sustainability by incorporating waste reduction, reuse, and recycling practices.
4. Comply with all relevant environmental and safety regulations under Egyptian law and global standards.

Types of Waste Managed

1. **General Waste:** Includes paper, plastics, food waste, and other non-hazardous materials.
2. **Hazardous Waste:** Includes chemical, biological, and radioactive waste generated from laboratories, medical facilities, and maintenance operations.

General Waste Management Practices

1. **Waste Segregation:**
 - Establish designated collection points across campus for recyclable, organic, and landfill waste.
 - Use color-coded bins to simplify segregation (e.g., blue for recyclables, green for organic waste, and black for landfill waste).

2. Recycling Initiatives:

- Partner with local recycling companies to manage paper, plastic, and metal waste.
- Encourage departments to reduce paper usage by transitioning to digital solutions.

3. Composting:

- Utilize composting facilities for organic waste from cafeterias and landscaping activities.
- Use compost to support campus gardens and landscaping projects.

4. Periodic Audits:

- Conduct waste audits to identify areas for improvement in waste reduction and recycling efforts.

Hazardous Materials Management Practices

1. Identification and Inventory:

- Maintain an up-to-date inventory of hazardous materials used in laboratories and medical facilities.
- Label all hazardous waste containers clearly with the type of waste and associated risks.

2. Storage and Containment:

- Store hazardous materials in dedicated, secure facilities designed to prevent leaks and contamination.
- Use secondary containment systems for liquids to minimize spill risks.

3. Handling and Training:

- Train staff and students on proper handling, storage, and disposal of hazardous materials.
- Provide personal protective equipment (PPE) and emergency response tools in all relevant facilities.

4. Disposal Procedures:

- **Chemical Waste:** Neutralize or stabilize chemical waste before disposal, and work with certified hazardous waste disposal companies for safe removal.
- **Biological Waste:** Autoclave biological waste to neutralize pathogens before disposal.
- **Radioactive Waste:** Follow strict protocols for temporary storage and disposal through licensed facilities.

5. Emergency Preparedness:

- Develop and implement spill response plans, including readily accessible spill kits and emergency contact lists.
- Conduct regular drills for chemical spill containment and cleanup.

Compliance and Reporting

1. Regulatory Compliance:

- Adhere to the *Egyptian Environmental Protection Law (Law No. 4/1994)* and its amendments regarding waste and hazardous materials management.
- Follow the guidelines set by the Ministry of Environment and international standards such as ISO 14001.

2. Waste Tracking and Reporting:

- Maintain detailed records of hazardous waste generation, storage, and disposal.
- Submit annual reports to relevant regulatory authorities.

Education and Awareness

1. Training Programs:

- Offer workshops and training sessions on waste management for faculty, staff, and students.
- Include waste management topics in sustainability-related courses and research opportunities.

2. Awareness Campaigns:

- Run campus-wide campaigns to promote waste reduction and recycling.
- Use signage and digital platforms to educate the community on proper waste segregation.

Continuous Improvement

1. Regular Reviews:

- Periodically review waste management practices to incorporate new technologies and methods.
- Engage stakeholders, including students and staff, in feedback and planning processes.

2. Innovation and Research:

- Encourage academic research on innovative waste management and recycling technologies.
- Pilot new projects that align with the university's sustainability goals.

Conclusion

Through these practices, Alexandria University seeks to minimize its environmental footprint, protect human health, and foster a culture of sustainability. The university will continue to adapt and enhance its waste disposal and hazardous materials management practices in alignment with evolving standards and community expectations.

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References:

1. Egyptian Environmental Protection Law (Law No. 4/1994).
 2. UN Environment Program (UNEP) - *Guidelines for Hazardous Waste Management*.
 3. ISO 14001 Environmental Management System Standards.
 4. Ministry of Environment, Egypt - *National Waste Management Strategy*.
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