NIET
Greater Noida
GET FUTURE READY
AN AUTONOMOUS INSTITUTE

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

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Solid Waste Management Policy

1. Preamble

Noida Institute of Engineering and Technology (NIET), Greater Noida, is deeply committed to environmental sustainability and responsible resource management. This policy outlines an integrated Waste Management Process designed to ensure the systematic collection, segregation, recycling, treatment, and safe disposal of various types of waste generated across the campus. It applies to all academic departments, laboratories, hostels, offices, cafeterias, and common areas within the campus premises. NIET aims to minimize its environmental footprint by promoting a culture of waste reduction, reuse, and recycling.

2. Policy Objectives

i. To minimize the generation of all types of waste within the campus.
ii. To ensure effective segregation of waste at the source.
iii. To maximize the recycling and reuse of generated waste.
iv. To safely treat and dispose of non-recyclable and hazardous waste in an environmentally sound manner.
v. To comply with all relevant environmental regulations and local municipal norms.
vi. To raise awareness and encourage participation of all campus stakeholders (students, faculty, and staff) in responsible waste management practices.

3. Scope

This policy covers the management of all solid waste, bio-waste, e-waste, and paper waste generated within the NIET, Greater Noida campus, from identification and collection to segregation, storage, and final disposal or recycling.

4. Solid Waste Management

Objective: To minimize, segregate, and responsibly manage all non-hazardous solid waste generated within the campus.

4.1. Sources of Waste (Identification)

Waste generation at NIET stems from various facilities:

i. **Academic Departments and Laboratories:** Paper waste, minimal lab chemicals, expired reagents, broken glassware, electronic equipment.
ii. **Hostels and Residences:** Kitchen waste (organic), packaging, sanitary waste, plastic bottles, old clothing.

   iii.   **Administrative Offices and Classrooms:** Paper waste, printer cartridges, obsolete documents, minor e-waste.

   iv.   **Cafeteria and Canteens:** Biodegradable food waste, single-use plastic, metal cans, cardboard.

   v.   **Medical Rooms / First Aid Centres:** Bandages, gloves, expired medicines, sanitary items.

   vi.   **IT Laboratories and Server Rooms:** E-waste (CPUs, monitors, keyboards, cables, UPS batteries).

   vii.   **Common Areas (gardens, walkways, hostels):** Leaf litter, packaging waste, general litter, recyclable plastics.

4.2. Collection and Segregation of Waste

NIET implements a decentralized yet efficient system for waste collection and segregation at source:

   i.   **Segregation Protocol:**
      a. **Food Waste:** Daily collection.
      b. **Biodegradable Waste:** Green bins, daily collection.
      c. **Recyclable Waste:** Blue bins, collected twice weekly.
      d. **Sanitary/Bio-waste:** Yellow bins, daily collection (especially from medical areas).
      e. **E-waste:** Dedicated storage, regularly pickup.
      f. **Paper Waste:** Dedicated collection, regularly pickup.

   ii.   **Collection Responsibility:** Housekeeping staff collect segregated waste daily and transfer it to designated collection points. Assigned teams handle paper waste, food waste (hostel mess), sanitary waste, and e-waste.

   iii.   **Storage:** Temporary storage for biodegradable and recyclable waste is provided near centralized collection points. E-waste is stored securely in a locked storeroom.

4.3. Disposal of Waste

Each waste category is disposed of through appropriate and environmentally safe methods:

   i.   **Food Waste:** Collected and weighed daily from the hostel mess and sent daily to a local firm (for pig farms).

   ii.   **Biodegradable Waste:** Sent to on-campus organic composting pits near the main ground. Resulting compost is used in horticulture and landscaping.

   iii.   **Recyclable Waste (Plastic, Metal, Cardboard):** Collected weekly and sent to authorized recyclers under contract.

   iv.   **Non-Recyclable/Inert Waste:** Stored securely and handed over to Greater Noida Authority for final disposal via municipal solid waste disposal trucks twice a week.

   v.   **Sanitary and Bio-waste:** Collected in dedicated bins/incinerators and disposed of securely.

5. Bio-Waste Management

Objective: To safely handle and dispose of biological and sanitary waste in line with public health and biomedical safety guidelines.

5.1. Sources of Bio-Waste (Identification)

Bio-waste is primarily generated from:

i.   **First Aid Room / Medical Care Unit:** Cotton swabs, bandages, gloves, expired medicines, syringes, dressing material.
ii. **Girls' and Boys' Hostel Washrooms:** Sanitary napkins and hygiene products.
iii. **Biotechnology Laboratory:** Minimal bio-laboratory waste (microbial cultures, agar plates, disposable gloves).
iv. **General Washrooms (Academic/Administrative Blocks):** Sanitary pads and personal hygiene-related waste.

5.2. Collection and Segregation of Bio-Waste

i. **Segregation & Packaging:** Bio-waste is collected in designated bags and dedicated bins (pink) for sanitary pads are installed in all washrooms.
ii. **Incinerator Use:** Bio-waste is handed over to Greater Noida Authority for high-temperature incineration to ensure complete sterilization and pathogen destruction.

5.3. Disposal of Bio-Waste

i. **Disposal Methodology:** All bio-waste is handed over to Greater Noida Authority for incineration.
ii. **Documentation & Compliance:** NIET maintains food waste generation and handover logs and regular monitoring is conducted quarterly.

5.4. Additional Safety and Training Measures

i. **Training Sessions:** Appropriate guidance is provided for sanitation workers, lab assistants, hostel caretakers, and room attendants on bio-waste segregation and handling.
ii. **Signage and Awareness Posters:** Displayed in washrooms and labs to ensure correct disposal practices.

6. E-Waste Management

Objective: To manage obsolete or discarded electronic and electrical items through environmentally sound disposal or recycling practices in line with the E-Waste (Management) Rules, 2022.

6.1. Sources of E-Waste (Identification)

E-waste is generated from:

i. **Computer Labs and IT Classrooms:** Outdated CPUs, monitors, keyboards, mice, printers, networking devices.

ii.   **Offices and Administration Blocks:** Photocopiers, scanners, printers, old desktop systems, landline phones.
iii. **Laboratories and Technical Workshops:** Faulty instruments, digital meters, project boards, old batteries.
iv.   **Hostels and Utility Areas:** Discarded chargers, fans, switches, electric kettles, CFLs/LEDs.
v.   **Server Rooms and Surveillance Systems:** Obsolete routers, switches, hard drives, UPS units.

6.2. Collection and Segregation of E-Waste

NIET follows a centralized collection and segregation process:

i.   **Collection Points:** E-waste is collected from IT labs, staff rooms, administrative offices, hostel maintenance rooms, and department technician rooms.
ii. **Frequency & Quantity:** Regularly for IT equipment, small electronics, and batteries/cables/UPS. Quarterly for laboratory devices.
iii. **Segregation Practices:** Functional but obsolete equipment is identified for internal reuse/redistribution. Non-functional/end-of-life devices are moved to the E-waste storage room (behind the canteen). Hazardous E-components (batteries, CFLs) are stored separately.

6.3. Disposal of E-Waste

i.   **Authorized Recycler Partnership:** E-waste is collected and processed quarterly by recycling vendor.
ii. **Data Security Protocol:** Prior to disposal, storage devices undergo secure data wiping or physical destruction.
iii. **Component-wise Recycling:** Segregated components (plastics, circuit boards, metals) are recovered through dismantling.

6.4. Awareness and Preventive Measures

i.   **Signage:** "E-Waste Only" collection bins are placed in IT Lab.
ii. **Awareness Drives:** Conducted during orientation and Environment Week.
iii. **Minimization:** Procurement of durable, repairable electronics and digitization of services.

7. Paper Waste Management

Objective: To reduce paper consumption, encourage reuse, and promote recycling to build a paper-smart campus.

7.1. Sources of Paper Waste (Identification)

Paper waste originates from:

i.   **Academic Departments and Classrooms:** Old lecture notes, handouts, rough sheets, assignment printouts, exam answer scripts.

ii. **Administrative and Examination Sections:** Official correspondence, outdated records, photocopy rejects, forms, printed circulars.

iii. **Library and Printing Stations:** Damaged books, old catalogues, photocopying errors.

iv. **Hostels and Common Areas:** Newspapers, magazines, packaging material, used notebooks.

v. **Faculty Rooms and Research Labs:** Draft research papers, rough calculations, printouts.

7.2. Collection and Segregation of Paper Waste

NIET ensures collection and source-level segregation:

i. **Collection System:** Dedicated collection points in academic departments, admin/exam cell, hostels, faculty rooms, library, and photocopy centers.

ii. **Segregation Practices:** Usable one-sided blank sheets are collected for internal reuse. Confidential paper waste is stored securely for shredding. General non-confidential paper waste is segregated into clean and mixed categories.

iii. **Storage:** A centralized paper waste collection room is located adjacent to the Exam Cell.

7.3. Disposal of Paper Waste

Paper waste is disposed of through environmentally sound and reuse-oriented methods:

i. **Recycling:** Non-confidential paper waste is handed over monthly to GreenLeaf Paper Recyclers, Greater Noida, a certified paper recycling vendor. Waste receipt notes and recycling certificates are obtained.

ii. **Internal Reuse:** Usable one-sided sheets are reused for internal office work, rough drafts, and student scribbling pads.

iii. **Shredded Disposal (Confidential Documents):** Confidential documents are shredded using in-house shredding machines and sent separately for recycling.

iv. **Books and Printed Material:** Damaged or outdated books are either donated (if reusable) or sent to recycling vendors.

7.4. Sustainability and Awareness Measures

i. **Paperless Initiative:** Adoption of digital tools for attendance, academic records, circulars, and internal communication to reduce paper generation at source.

8. Monitoring & Implementation

i. **Oversight:** The **Institute Infrastructure Maintenance & Sustainability Committee (IIMSC)** of NIET will oversee the implementation and compliance of this waste management policy.

ii. **Monitoring:** Periodic monitoring will be conducted to evaluate effectiveness, identify areas for improvement, and review collection, disposal records, and vendor documentation.

iii. **Compliance:** Regular monitoring ensures adherence to handling protocols and record accuracy, including quarterly checks for bio-waste.

9. Policy Review

This policy will be reviewed periodically, or as needed, to ensure its effectiveness, relevance, and compliance with changing regulations and best practices in waste management.

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