

# K.L. MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

# POLICY ON WASTE MANAGEMENT AND GREEN INITIATIVES

### **PREAMBLE**

K.L. Mehta Dayanand College for Women has a mission to develop knowledge, skills, attitudes and values through dynamic and interactive methods of learning and grooming students into highly competent professionals and responsible citizens. It was established in 1970 with a vision to emerge as a centre of excellence and provide knowledge and all round development of students in the fields of Arts, Commerce & Management, Science, Home Science, Computer Science and Environmental Sciences.

The institution realizes the importance of a comprehensive and sustainable approach in waste management which is essential for reducing its ecological footprint and providing a safe and healthy work environment for students, teaching and non-teaching staff and visitors.

The institution has liability to ensure that all the campus wastes are disposed of responsibly by proper waste segregation at the source and possibly, converting it into ecological valuable products. Furthermore, it is realized that suitable environment friendly measures should be adopted for reducing the impact of human activities on the environment. This would be in accordance with Environmental laws and legislations as well as the Sustainable Development Goals set by the government.

The aim of this policy is to set up goals and targets and to facilitate the implementation of suitable action plans based on the 4Rs(Reduce, Reuse, Recycle and Recover) strategy of waste management in the institution, focusing on their minimization, environmentally sound management and active promotion of cleaner environmental practices through community engagement.

The policy follows the various environmental regulations such as National Environmental Policy of 2006, Environmental Protection Act, Water Act, Air Act along with different rules framed by the Central and State administration from time to time.

### POLICY STATEMENT

The Waste Management Policy has been framed to affirm the institute's commitment to safe and efficient waste management. It also promotes environmental issues as an integral domain of its activities demonstrating its responsibility to continual advancement in adopting green initiatives.

The institute shall adopt, implement and sustain an Environment Management System that would lead to sustainable development and incur positive effects on human health as well as the environment.

 The institution will follow the principles of best sustainable environment option as reasonably possible in the delivery of its waste management services and ecological initiatives.

- The institution will exhibit leadership in waste management practices through waste avoidance, reduction and increased resource recovery in all its various operations.
- The institution will adopt a 'Waste Hierarchical Approach'; recycle, reduce, reuse and recover waste products primarily reducing the disposal of waste to landfill.
- The institute recognizes the importance of compliance with legal requirements laid down by the government and responsibility of managing its waste by maximising recycling, reuse and reducing waste disposal to landfill.
- The institution will promote energy use efficiencies and water conservation through adequate programs and practices. The institute will embark on possible efforts to reduce carbon footprints from college related activities by using cleaner and ecofriendly measures.
- The institution will assess the environmental objectives and targets regularly in order to minimize resource usage and revamp environmental performance.
- The institution requires that all the students, teaching and non-teaching staff, guests or anyone else making use of the premises abide by the environmental objectives set in the policy and associated Environmental Management System to ensure abidance with all environmental legislations.

### **POLICY OBJECTIVES**

The objectives of this policy are:

- i. To create environmental awareness among students, staff and society at large to reuse and recycle and minimize waste production.
- ii. To ensure that waste management is performed at the institution in accordance with all waste legislative requirements.
- iii. To adopt holistic approach for waste management, resource conservation and green initiatives at the institution.
- iv. To encourage judicious use of environmental resources to meet the needs and aspirations of the present and future generations.
- v. To provide clearly defined roles and responsibilities to identify and coordinate each activity related to waste management and green initiatives.
- vi. To invest into the expansion of recycling opportunities in the institution and transform waste into value added products.

### ORGANISATION AND MANAGEMENT

The responsibilities and management of the 'Waste Management Policy' lie with variety of personnel within the institute.

### **Advisory Board**

An advisory board shall be constituted with the following organization structure:

- 1. President of MDES- Chairman
- 2. Principal

- 3. Two Faculty members from Bio-Science Department
- 4. Two Faculty members from Chemistry Department
- 5. Two Faculty members from Management/Humanities Departments
- 6. Two faculty members from Computer Science Department
- 7. 1 Hardware Technician

### **Functions of the Advisory Board**

The advisory board shall assume following roles:

- Comply with this Policy Document in its true value and spirit.
- Guide and provide directions to the implementation of initiatives for environmental conservation in the field of waste, energy and water.
- Advise and coordinate the provision laid in the Waste Management Policy at the institution.
- Monitoring the management systems for all wastes and legal compliance.
- Set up a Green Cell of the College for monitoring and supervising the activity components of the policy document.

### Responsibilities

### Heads of Departments/Section In-charge

They shall have the following responsibilities:

- 1) Abide by this policy document in its true value and spirit.
- 2) Ensure that all staff in their respective department is aware of the procedures/practices about waste management formulated in the policy.
- 3) Ensure that waste is disposed responsibly in the premises through the appropriate waste disposal system (such as segregation of waste and 4Rs), in compliance with policy and procedures.
- 4) Ensure that no hazardous waste is disposed of through the general or recycling waste.

### • Students/Staff members:

- 1) Abide by this policy document of the College in its true value and spirit.
- 2) Dispose the waste responsibly, through the appropriate waste disposal system (segregation of waste), in accordance with College policy and procedures.
- 3) Promote peer to peer understanding and appreciation of natural environment.
- 4) Report any challenges related to laboratory or departmental waste or waste collection practices to the Head of Department
- 5) Promote awareness for appropriate waste management practices at home and neighbourhood.

### POLICY FOR WASTE MANAGEMENT

### **Solid Waste Management**

The College shall adopt a 'Integrated Solid Waste Management Hierarchical Approach', to minimize the impact on environment by reduce, reuse, recycle and recover waste products, primarily reducing the disposal of waste to landfill through following methods.

- In the hierarchy of waste management, priority should be waste minimization at the source by dissemination of information by organising various awareness campaigns in the institution.
- Sustainable and reuse of products wherever possible and processing the Non biodegradable waste like plastic, tin, glass, paper and others to be handed over either to authorised waste-pickers and recyclers or to the urban local body for recycling.
- Segregation of waste in separate colour coded bins-blue for dry waste (Plastic, Paper, metal, Wood, etc.) and green for wet waste to be processed further for composting.
- Reduce the consumption of paper by updating College library with E-books and E-journals instead of printed books.
- Encouraging the students and teachers for online submission of assignments and project reports.

### **Wastewater Management**

The College shall undertake its best efforts for efficient management of water and waste water by adopting following measures:

- Avoiding wastage of water in premises by maintaining leak proof fixtures.
- Reusing the waste water generated by Reverse Osmosis (RO) System in wash rooms.
- Minimizing the consumption of water by constructing more Indian style toilets which are eco-friendly than western style toilets.
- Treat or dispose wastewater in a sustainable manner as per applicable guidelines by Central Ground Water Authority (CGWA) and National Green Tribunal (NGT).
- Initiating a techno-economic feasibility study for arriving at an appropriate solution for establishing Sewage Treatment Plant (STP) in the campus.

### E-waste/Hazardous Waste Management

The e-waste originating at College premises shall be managed as per the policy or regulations laid down by Central and State government (E-Waste Management Rules 2018).

• Regular up-gradation of electronic equipment's such as computers and its peripherals to continue usage and to avoid its wastage.

- Directing all the departments for regular scrutinization of all the items in stock which could possibly be classified in e-waste in the coming 3, 6 and 12 months.
- Establishing an e-waste collection centre for obtaining e-waste from different departments.
- Inviting suitable vendors authorised by the Central Pollution Control Board for collection of e-waste from the College for recycling.

### GREEN INITIATIVES AT COLLEGE PREMISES

K. L. Mehta Dayanand College has a campus of 5.5 acres with a huge lawn of 1 acre and land scaping of various open places. The institution believes in rethinking growth strategies with regard to their impact on the environmental sustainability.

### **Green Audit**

The institution shall carry out a comprehensive Green Audit annually to ensure that all the policies, their applicable regulations and actions are in abidance with sustainability of Environment. The purpose of the green audit is to have better waste management system and improved water usage and energy efficiency for all round management and development of College in eco-friendly manner for sustainable future.

The Green audit may consist of following broad points:

- Water audit Water audit should be done regularly for monitoring the source, its consumption and recycling.
- Waste audit –Waste audit gives a complete analysis of waste generated in the campus and will provide a follow up for reduced waste generation and efficient waste management in the campus.
- **Energy audit** Energy audit will provide insight of energy consumption in the campus and opportunities to reduce carbon footprints and energy conservation.
- **Plantation audit** It involves Tree labelling (Botanical and common names), tree counting and maintaining biodiversity record.

### **Energy Conservation**

- The institution is dedicated to minimize energy consumption, avoid wastage and sustainable use of non-renewable sources of energy.
- Promote renewable sources of energy such as installation of solar panels on rooftops for lighting the campus.
- Environment friendly electrical appliances should be installed to reduce the wasteful inefficiencies. Fluorescent lights may be replaced with LED lights to save energy. All

- the air conditioners, refrigerators and laboratory equipment's should be having energy stars with power savings to reduce the consumption of energy.
- Creating awareness among the students to switch off lights and fans when not in use.

### Water Conservation

- As the institution lies in District Faridabad of Haryana where the Ground water table
  is reducing at a rapid pace so there is dire need to recharge the ground water and
  KLMDNCW has committed itself to this effort by adopting rain water harvesting for
  conservation of water.
- Judicious use of water by using micro irrigation techniques such as sprinklers for maintaining lawns and adopting sustainable gardening practices.
- Recruitment of a caretaker to regularly check and immediately repair water leakages from taps, tanks, pipes, toilet flush etc. to avoid the wastage of water.

### **Reduction of Carbon Footprints**

- The institute shall do possible efforts to reduce carbon footprints by organizing tree plantation drives on and off campus.
- Promote use of cleaner and eco-friendly methods by organizing various activities and competitions among students.
- Encourage the staff and students for using bicycles, public transport and/or car pool at least once a week for routine transportation.

### Plastic free campus

With more and more alarm bells ringing about the threat plastic poses to our environment and life on this planet, the institute shall ban the use of single use plastic at College premises and take the pride of Plastic free campus. Various awareness programmes may be initiated to motivate the staff, students and people in surrounding areas to phase out single use plastic from their daily routine.

### Plantation and Landscaping of Campus

The lush green campus of college has around 200 trees and more than 50 shrubs along with 1 acre of grass cover. The institute has a Botanical garden also wherein seasonal and medicinal plants are grown.

Landscapes should serve an important function to get multiple layers of functionality out of campus open spaces. Land scapes serve as wellness drivers for supporting the physiological and psychological needs of students and staff. Integrating landscape with building design can provide holistic environment for students to interact with nature.

### **Green Societies and Awareness Programs**

The institute shall encourage the Green society as well as other environment centric societies like NSS to organize activities, competitions and training sessions and outreach programmes to create awareness about environmental problems and their conservation among the students and the public at large.

The institute shall organize various workshops/seminars/dialogues/talks/creative actions/research programmes in order to sensitize the students, staff and community about global and local environmental issues for moving towards a resilient future.

### **IMPLEMENTATION**

K.L. Mehta Dayanand College for Women believes in "Let's go green to get our College clean". College's pivotal operations have very less impact on the environment as the institute is very conscious of generating less waste and recycling it by passing it through a system that enables the used material to be reused ensuring that less natural resources are consumed. Environmental initiatives like use of renewable energy, Rain water harvesting, and Zero water discharge, waste management system etc. have been implemented. Environment consciousness is embodied in the heart of the college by tree plantations from NSS teams and Botany Department every year which is the predominant motive of the management to maintain the pristine purity and beauty of the college and also to provide a congenial atmosphere for the academic and non-academic pursuits.

The institute's waste management practices are divided into three parts:

- 1. Solid Waste Management
- 2. Liquid Waste Management
- 3. E-Waste/Hazardous Waste Management
- 1. Solid Waste Management: The waste generated in the campus includes wrappers, glass, paper, plastics, etc. Old newspapers, used papers, journal files, and workshop scrap etc. are given for recycling to external agencies. Glass, metals, plastic and other non-biodegradable wastes are given to external agencies where they are segregated and disposed/recycled according to the nature of the waste. Organic waste from canteen and Leaf litter is shredded by Leaf cutting machine and allowed to decompose systematically over a period of time to be used as manure for the gardens in the institute. Sanitary Napkin Incinerators have been installed in the girl's restrooms to facilitate disposal of sanitary napkins in an environment-friendly way. Waste materials like cardboards, plastics containers, CDs, packaging boxes etc. are used by students as decoration material for various College fests and in activities like Best out of Waste creating aesthetically useful products.
- **2. Liquid Waste Management:** Waste water from RO (Reverse Osmosis) plant is reused in washrooms and for other cleanliness purposes. The liquid wastes generated in the campus include Sewage, Laboratory and canteen effluent waste which is discharged safely to

sewage network of Municipal Corporation of Faridabad, for which sewer tax is paid. The waste water should be tested for its characteristics like Chemical Oxygen Demand (COD), Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Total dissolved Solids (TDS), pH and Colour etc. on timely basis before it's discharged into Municipal drainage System. The laboratory waste water does not contain hazardous chemicals and periodical monitoring is done by the maintenance team. A proposal for installation of Sewage Treatment Plant has been forwarded to the consultants.

**3. E-Waste/Hazardous Waste Management:** Our institution practices environmentally sound management of e-waste as per the guidelines mentioned in the E-waste Management Rules, 2016.

Step-by-Step Process of E-waste Recycling in our college is as below:

STEP 1: Identifying the e-waste from other items.

STEP 2: Setting up a collection centre in college for e-waste.

STEP 3: Making a list of all items that are to be disposed

STEP 4: Inviting quotations for E-Waste Recycling companies.

STEP 5: Making a comparative study of all the quotations.

STEP 6: Choosing the best offer after comparing all quotations and call them in college for visit to e- waste collection centre.

STEP 7: Finalizing and transporting the e-waste to their collection centre.

STEP 8: Collecting e-waste certificate.



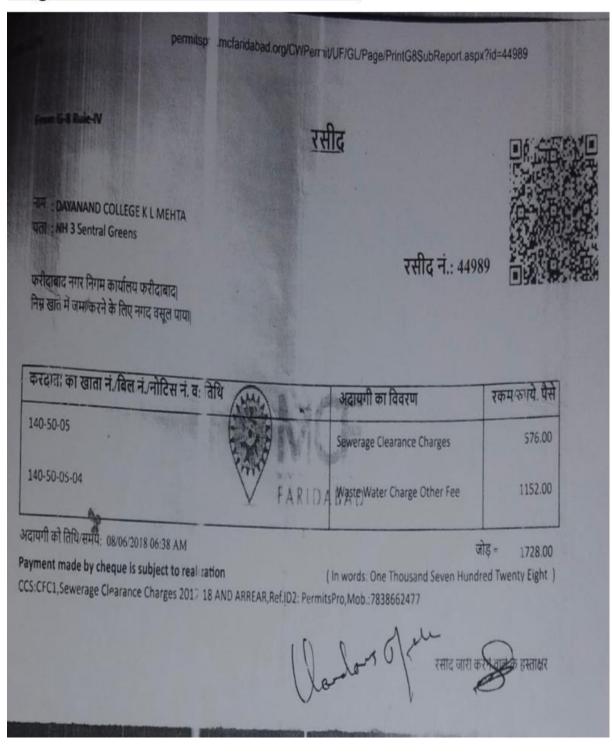
### **BIO-MEDICAL WASTE MANAGEMENT**



### **REUSE OF RO WASTE WATER**



## **LIQUID WASTE MANAGEMENT**





# WASTE RECYCLING SYSTEM (LEAF CUTTER MACHINE)



### **ROOFTOP SOLAR PANEL**



### E WASTE MANAGEMENT

# K.L. MEHTA DAYANAND COLLEGE FOR WOMEN-FARIDABAD

### GATE PASS Date 17.4.2021

### A to Z E-Waste Solutions

1. UPS qty= 60 Nos.

APC 600, microtek e2,microtek 850 va, Intex, MPAQ, Promax, Zebronics

- 2. Printer
  - 1. HP all in One 4255 Fax also
  - 2. Samsung Laser Jet MC-1210
  - HP deskjet F 4288 all in one.
  - 4. HP deskjet 3325
  - 5. Konika Minolta bizhub 210
- 3. Motherboard =10
- 4. HardDisk
- 4. HardDnx 5. Battery, 7.2mah =16 =08

Note: Lab 5 LED HCL HCMDLWBT 11 model TFT15W68PSA+

- 7. SMPS
- =17 -9
- 8. Monitor

LG Flatron4, Samsung2, sontel 01 HCL 01

- 9. Keyboard in KG
- 10. Mouse in KG

Dr. Vandana Mohla

(Officiating Principal)

### 'तमसो मा ज्येतिरोमध'

Phone: 0129-2416602

### K. L. MEHTA DAYANAND COLLEGE FOR WOMEN

K.L. MEHTA MARG, N.H.3, N.I.T. FARIDABAD-121001 AFFILIATED TO M. D. UNIVERSITY, ROHTAK

Dates 17.04.2021

We have given the below list items of E-Waste scrap for disposal purpose to M/S A TO Z E-Waste Solutions

Plot no.66 Pragati Vihar Industrial Area Ballabhgurh, Faridabad

Sr. No.	Isems	Quantity	Rates	Value
1.	UPS Scrap	357.8	28/-	10,018.40
2.	Monitor Scrap	9	100%	900
3.	Printers Photocopiers Keyboarda Mouse Incomplete CPU & Other Miscellaneous E-waste Scrap	223.4	20/-	4468
¥.	Total	B	S. 15,386	6.4/-

We have received a cheque of Rs. 15,386.4/- drawn on HDFC Bank. Sector-9 Faridabad dated:-17.04.2021

Cheque No. 000445 dated:-17.04.2021

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