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<u>Waste Management</u> <u>Policy</u>

Govt. Holkar (Model Autonomous) Science College, Indore (M.P.)





Dr. Suresh T. Silawat Principal Govt. Holkar (Model Autonomous) Science College, Indore



In today's rapidly changing scenario, strategies for managing waste also focuses on sustainability. We are committed to creating a safe, healthy and pollution – free environment for all the stakeholders.

A premier institute in a premier city of India, it is our prime responsibility to work on strategies for better waste management. The Institution has a responsibility to make sure that any waste generated on campus is disposed of appropriately. The Institution understands the significance of adhering to the regulatory obligations of managing trash responsibly, minimising waste transported to landfills, and maximising reuse and recycling opportunities.

To guarantee compliance with all waste laws, the College expects that all teaching and non-teaching staff, students, visitors, and anyone else using the facilities adhere to this Policy and any associated notifications. Any solid waste produced on campus must be managed and treated in accordance with the requirements and process outlined in Municipal Solid Wastes or Madhya Pradesh Pollution Control Board guidelines.

The Waste Management Policy shall be widely publicized to the Institute's faculties and students, as well as prominently displayed on the Institutional Website to attract the attention of concerned stakeholders

I congratulate and thank the committee for making this policy, and extend my best wishes!

Dr. Suresh T. Silawat Principal

Vision and Mission of the Institute

Vision:

To make our youth the torch-bearer of knowledge, and to continue the rich legacy of imparting scientific education and groom them on an intellectual, social and humane platform.

Mission:

- To create an innovative ecosystem for the promotion of scientific temperament.
- To enrich the academics with state-of-the art technology and innovation at par with the global standards.
- To impart Skill-based training relevant to local and global needs.
- To develop a well-groomed and empowered youth.
- To nurture a socially responsible and value-driven generation.

WASTE MANAGEMENT POLICY

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WASTE MANAGEMENT POLICY

The method employed by an organization to dispose of, reduce, reuse, and prevent trash is known as a waste management system. Recycling, composting, incineration, landfills, bioremediation, waste to energy, and waste minimization are a few potential waste disposal techniques. When it comes to waste management, it refers to the techniques used to control waste throughout its entire life cycle, from generation through disposal or recovery. There are numerous approaches and techniques for managing garbage. In order to create a waste management system that works for an organisation, these tactics might be merged or reorganised. Strategies for managing garbage today focus on sustainability.

PREAMBLE

Through the pursuit of quality in teaching, innovation, lifelong learning, cultural enrichment, and outreach programmes, Govt. Holkar (Model, Autonomous) Science College, Indore, is dedicated to transforming lives and serving the community. As a responsible organization, we are accountable for all our activities that enable our institution work towards implementing sustainable methods to reduce wastes that damage the environment and henceforth move forward towards attaining Sustainable Development Goals (SDGs) of United Nations by 2030.

In order to lessen the environmental impact due to accumulated waste and give teaching and non-teaching staff, students, and visitors a safe and healthy working environment, Govt. Holkar (Model, Autonomous) Science College, Indore practises sustainable and holistic waste management.

INTRODUCTION

Indore, being crowned as the "cleanest city of India" for the sixth consecutive time, therefore being a premiere institution of the city, responsibility naturally comes on us for better waste management. The Institution has a responsibility to make sure that any waste generated on campus is disposed of appropriately, ideally by turning it into a product with additional value that is also environmentally benign. Furthermore, government-approved and registered waste companies shall dispose off or handle the hazardous solid and chemical waste.

The intention of the policy is to make it easier to carry out the proper management of waste (hazardous as well as non-hazardous), including their minimization, environmentally sound management, and active promotion of the transfer and use of cleaner technology, as reflected in the "National Environment Policy 2006".



Fig 1: The 5 R's of Zero Waste

Source: https://www.sustainability100plus.com/abinbev-article-page/5-rs-to-build-a-better-tomorrow-rethink-reduce-reuse-recycle-revive-6955451.html

When providing waste management services, the College adheres to the "5 R's [Refuce, Reduce, Reuse, Recycle, Rot]" standards. In place of disposing of garbage in landfills, the College utilises a "Hierarchical Waste Management Strategy,"(HWMS) which prioritises waste reduction, reuse, recycling, and product recovery.

Objective & Goals

The Institution understands the significance of adhering to these regulatory obligations, managing trash responsibly, minimising waste transported to landfills, and maximising reuse and recycling opportunities.

To guarantee compliance with all waste laws, the College expects that all teaching and non-teaching staff, students, visitors, and anyone else using the facilities adhere to this Policy and any associated notifications. Any solid waste produced on campus must be managed and treated in accordance with the requirements and process outlined in Municipal Solid Wastes or Madhya Pradesh Pollution Control Board guidelines.

Anyone who creates, keeps, or disposes of hazardous or chemical waste of any kind, is required to abide by the rules established by national and international environmental protection legislation.

The goals of this policy are to:

- Ensure that waste management is carried out in line with all applicable legal obligations, and plan for minimise the effects of future legislative changes.
- To encourage repair, reuse, and recycling as opposed to waste disposal in a way that is cost-effective and minimises waste formation at the source.
- To clearly define roles and duties in order to identify and coordinate each waste

management action.

- To increase and encourage trash minimization, reuse, and recycling through promoting environmental consciousness.
- To make investments in improving recycling options on the college campus and turning trash into products with value-added.
- To make sure that waste is handled and stored safely on college property.
- To ensure the proper training of teachers, residents, employees, students, and other stakeholders on waste management concerns. To ensure the safe handling and storage of wastes on the college site.
- To encourage a campus-wide, integrated approach to trash management.

Committee and its Function:

Several employees within the College are in charge of this Waste Management Policy's organisational structures and responsibilities.

Advisory Board

- a. Principal-Chairman
- b. Co-ordinator (ESMC) Member Secretary
- c. One Senior Professor
- d. Two outside expert (to be nominated by the Principal)

Function of Advisory Board

- (i). Coordinating the delivery plan for waste disposal and recycling that will be used by all facilities on the campus.
- ii). Ensuring that all concerned are informed of their obligation to follow the College's waste management policy.
- iii). Providing the Institution with waste management expertise and direction.

Function of Co-ordinator, Environment Sustainability Management Cell (ESMC)

- i). Giving the College waste management advice and direction.
- ii). To set environmental performance indicators for waste management.
- iii). Presenting yearly progress reports to the College on the "Environmental Performance Indicators" (EPIs).
- iv). Ensuring safety and legal compliance by monitoring and assessing the waste management systems for all types of waste.
- v). Keeping track of and inspecting the waste segregation and disposal in the College.

- vi). Providing necessary training to all employees who are in charge of waste management.
- vii). When information on waste management is required, coordinating the gathering of all pertinent information and providing it to the appropriate enforcement agencies.
- vii). Investigation of any spills or events involving the handling of general and hazardous waste.

Function of Support staff:

- i). Supervising the regular delivery of general garbage and their recycling services.
- ii). Cooperating with the "Environment Sustainability Management Cell" to create standardised practises for trash management on the campus.
- iv). Monitoring the campus's waste management systems on a daily basis.

Function of Head of the Departments:

The following are the duties of the department heads:

Non-hazardous Wastes: Making sure that no hazardous trash is disposed of in the waste recycling or general streams.

Hazardous Wastes: Choosing a "responsible person" within their department to organise the disposal of any hazardous or laboratory wastes.

iii) Notifying the Environment Sustainability and Management Cell of the designated "responsible person" and keeping the cell updated if and when the "responsible person" changes.

Function of Staff and supervisors:

- i). Will be accountable for disposing of garbage in a responsible manner, using the proper system (segregating waste), and in compliance with Institution's policies and procedures.
- ii). Notifying the Institution's ESMC of any issues with garbage collection plans.

Function of Students:

- i). Will dispose the waste in a responsible manner in compliance with institution policies and procedures and using the proper waste disposal system.
- ii). Informing the "Head of Department" of any issues with laboratory or departmental waste or the trash collection process.

Action Plan:

It will be necessary for the department head, project's principal investigator, and animal house manager to report any modifications or additions to the production of hazardous

waste as well as any actions made to reduce waste output per unit of production. According to the regulations on hazardous waste, an institution must keep a record of all sales, transfers, storage, recycling, and reprocessing of such wastes unless the State Pollution Control Board in question has prolonged the allotted time. The garbage could be recycled or reused, disposed of in on-campus private or public treatment, storage, and disposal facilities, or burned as suggested in the waste hierarchy list (Fig. 1). Inventories of 'end of life' consumer products such as e-waste are also required to be made.



Fig. 2. Hierarchical Waste Management Strategy (HWMS)

Steps inducted for Waste minimization and waste avoidance at the source:

The first steps in the hierarchy of waste management are waste avoidance and waste minimization, for which ongoing efforts should be made to disseminate knowledge about technology possibilities. Encourage the timely deployment of resource recovery, including the reuse of solvents, other reagents, byproducts, and wasted catalysts.

Steps inducted for recycling, reuse, and recovery of non-hazardous trash:

The institution will investigate possibilities and chances for environmentally sustainable reuse, recovery, and recycling of non-hazardous trash. Paper should be reused (backside).

Steps inducted for disposal of hazardous waste safely

Depending on the type of trash, safe and ecologically friendly disposal methods will be utilised for any waste that cannot be recycled or repurposed. According to the CPCB's rules, design and operation standards for disposal facilities should be rigorously followed.

Steps inducted for establishing standard treatment, storage, and disposal facilities:

Degradable and non-biodegradable garbage will be separated and processed in accordance with their physical nature at a common treatment facility for departmental and household waste.

Note:

- a) Animal house/bio-medical waste management and disposal will be carried out in accordance with Bio-Medical Waste (Management and Handling) Rules, 1998, MoEF, Gov. of India.
- b) Activities regarding establishment and utilisation of nuclear facilities and use of radioactive sources are to be carried out in India in accordance with the relevant provisions of the Atomic Energy Act, 1962.

Glossary:

Hazardous Waste:

Waste that causes substantial or potential threats to public health or the environment such as Acids, Pesticides, Fluorescent Tubes, Alkaline Solutions, Photographic Chemicals, Batteries Waste Oils Paint, Solvents, Computer Monitors, radioactive substances.

Recycling:

The diversion of waste away from landfill or incineration and the reprocessing that waste either into the same product or a different one. This mainly includes non-hazardous wastes such as organic waste, wood, paper, glass, cardboard, plastic and scrap metal.

Responsible person:

The person who oversees the waste to be removed from the departments and premise at which it was produced or is being held.

Waste:

According to United Nations Statistics Division (UNSD), waste are "materials that are not prime products (that is, products produced for the market) for which the generator has no further use in terms of his/her own purposes of production, transformation or consumption, and of which he/she wants to dispose. Wastes may be generated during the extraction of raw materials, the processing of raw materials into intermediate and final products, the consumption of final products, and other human activities. Residuals recycled or reused at the place of generation are excluded."

Incident:

A broad term for events that are distinguished from accidents in terms of being less severe.

Segregation:

Activity that is concerned with separation of waste or materials that are kept separately according to radiological, chemical and/or physical properties to facilitate waste handling and/or processing.

Treatment and disposal of "Biomedical Waste":

(a) Bio-medical waste shall be treated and disposed of in accordance with Schedule I, and in compliance with the standards prescribed in Schedule V, Bio-Medical Waste (Management and Handling) Rules, 1998, MoEF, Gov. of India.

(b) Every occupier, where required, shall set up in accordance with the time-schedule in Schedule VI, requisite bio-medical waste treatment facilities like incinerator, autoclave, microwave system for the treatment of waste, or, ensure requisite treatment of waste at a common waste treatment facility or any other waste treatment facility.

Biomedical waste: waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or in research activities pertaining thereto or in the production or testing of biologicals, and including categories mentioned in Schedule I, (Management and Handling) Rules, 1998, MoEF, Gov. of India.

Cytotoxic waste: may be contaminated with cytotoxic, pharmaceuticals, laboratory chemicals used in preparation, transportation and administration.

Chemical waste: is generated from the use of chemicals in laboratories for teaching and research

Radioactive waste: is contaminated with radioactive substances which arises from medical or research uses.

General waste: includes paper, plastics, glass, liquids and organics.

Hazardous Waste, bulk of which is generated by the industries, can cause environmental pollution and adverse health effects if not handled and managed properly. Its effective management, with emphasis on minimization of generation and recycling/reuse, taking into account economic aspects, is therefore essential.

AMENDMENTS

- The Institute shall examine its Waste Management Policy on a regular basis and change it as necessary to comply with national policies and directives issued by competent apex bodies.
- Pertaining to any contradiction/or conflict of interest, in any Policy of the Institution, the later revised policy will take precedence.

PUBLICATION OF WASTE MANAGEMENT POLICY

The Waste Management Policy shall be widely publicized to the Institute's faculties and students, as well as prominently displayed on the Institutional Website to attract the attention of concerned stakeholders.

https://www.worldbank.org/en/news/immersive-story/2018/09/20/what-a-waste-anupdated-look-into- the-future-of-solid-waste-management

http://www.mppcb.nic.in/proc/Tech/DEP%20Indore.pdf

ACKNOWLEDGEMENTS

A policy document on "**Waste Management**" has been drafted under the guidance of an Expert Committee: Dr. Sanjeeda Iqbal (Convener), Dr. Anil Patidar (Member), Dr. Roma Khullar (Member), Ms. Kavita Mujalde (Staff member), Mr. Ajay Singh Girwal (Staff Member), Mr. Chittranjan Nargave (Student member), Mr. Ankit Mahajan (Student Member).

IQAC acknowledges Dr. Suresh T. Silawat (Principal), Dr. G.D. Gupta (Vice-Principal), Dr. R.C. Dixit (Administrative Officer) and all the Head of the Departments for their guidance and extensive support during the preparation of this document. A special thanks need mention of Dr. Kanta Mulchandani for her meticulous proof reading of the draft. IQAC also thanks Mr. Bhagwan Suman and Mr. Ankiteshwar Prasad Shukla for their compiling assistance. All the other members of IQAC also need a special mention for their suggestions and guidance during the preparation of the policy.

IQAC acknowledges and appreciates the efforts made by the Expert Committee and all others in preparing this document.

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