

Radhakrishna Institute of Technology and Engineering (RITE)

Affiliated by (AICTE), MHRD Govt. of India, New Delhi & (BPUT), Govt. of Odisha

**Environmental Consciousness and Sustainability:
Describe the facilities in the institution
for the management of the following
types of degradable and non-degradable
waste: (Other Relevant Information)**

**7.1.2 Describe the facilities in the institution for the management of the following types of degradable and non-degradable waste:
(Other relevant information)**

S. N.	Particular	Availability
1	Solid Waste Management	√
2	Liquid Waste Management	√
3	Biomedical Waste Management	×
4	e-Waste Management	√
5	Waste recycling system	√
6	Hazardous Chemicals and Radioactive Waste Management	√

Waste Management Policy

Radhakrishna Institute of Technology &
Engineering, Bhubaneswar
(BPUT affiliated, AICTE approved & NAAC accredited)



Waste Management Policy

Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

CAMPUS: IDCO Plot No. 1, IDCO Industrial Estate, Barunei, Bhubaneswar-752057, Odisha
CITY OFFICE: Plot No-9, Sec-A, Zone-B, Mancheswar Industrial Estate, Bhubaneswar, Pin-751019
PHONE: 0674-2586659, FAX: 0674-2587565, EMAIL: riteodisha@gmail.com, WEB: www.riteindia.edu.in

Waste Management Policy Contents:

1. Introduction
2. Policy Statement
3. Policy Objectives
4. Organization and Management
5. Action Plan
6. Glossary


Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

Introduction

Radhakrishna Institute of Technology & Engineering, is committed to transform lives and serve the society through pursuit of excellence in teaching, innovation, lifelong learning, cultural enrichment and outreach services. Institute came into existence in 1958, with the objective to promote higher education and research in different fields. Radhakrishna Institute of Technology & Engineering has a sustainable and holistic waste management essential in reducing its environmental footprint and providing a safe and healthy work environment for teaching and non-teaching employees, students, and visitors. The College has a duty to ensure that all the campus wastes are disposed of responsibly by using proper waste segregation mechanism at the source and if possible, converting it into value added environment friendly product. Furthermore, the Solid & Chemical hazardous waste should be disposed or managed by government approved registered waste contractors. The purpose of the policy is to facilitate implementation of the action plan brought out in "National Environment Policy 2006" on management aspects of hazardous waste including their minimization, environmentally sound management and active promotion of transfer and use of cleaner technologies.

Policy Statement

The Institute will adopt the principles of the 'best practicable environmental option' in the delivery of its waste management services. The College will apply a 'waste hierarchical approach', to reduce, reuse, recycle and recover waste products in preference to the disposal of waste to landfill. The Institute recognizes the importance of meeting these legal requirements and to manage its waste responsibly, reduce the volume of waste sent to landfill and maximize reuse and recycling where possible. The College requires all the teaching and non-teaching staff, students, guests and anyone else making use of the premises to comply with this Policy and associated "College Environmental Guidance" to ensure compliance with all waste legislations. Any solid waste generated in the campus shall be managed and handled in accordance with the compliance criteria and the procedure lay down in Municipal Solid Wastes. There is a legal requirement for all who produce, keep or dispose hazardous/chemical waste of any type to comply with the various regulations under national and international environmental protection legislation.

Policy Objectives

The objectives of this policy are:

- To ensure that waste management is performed in accordance with all waste legislative requirements, including the duty of care, and to plan for future legislative changes and to mitigate their effects.


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- To minimize waste generation at source and facilitate repair, reuse and recycling over the disposal of wastes in a cost effective manner.
- To provide clearly defined roles and responsibilities to identify and co-ordinate each activity of the waste management.
- To promote environmental awareness in order to increase and encourage waste minimization, reuse and recycling.
- To invest into the expansion of recycling opportunities on the institution campus and transform waste into value added products.
- To ensure the safe handling and storage of wastes on Institution campus.
- To provide appropriate training for teacher, resident, staff, students and other stakeholders on waste management issues.
- To promote holistic approach of waste management in the campus.

Organization and Management

The responsibilities and organizational arrangements for this Waste Management Policy lie with a variety of personnel within the Institute.

Advisory Board

- a. Principal- Chairman
- b. Co coordinator IQAC Member Secretary
- c. HODs of all the departments
- d. Two outside expert (nominated by the Principal)

Function of Advisory Board

- i) Coordinating the provision of a central waste and recycling contract service for use by all facilities on the campus.
- ii) Ensuring that all contractors are advised that they must comply with the Duty of Care; that they must comply with the Institutions' Waste Management Policy.
- iii) Ensuring that all contractors appointed to carry out works are authorized Coordinator, Environment Sustainability Management Cell, RITE.


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RITE is responsible for:

- i) Provision of advice and guidance to the Institute on waste management.
- ii) Setting Environmental Performance Indicators for waste management.
- iii) Reporting annually to the College on progress against the 'Environmental Performance Indicators'.
- iv) Monitoring and auditing the management systems for all wastes, to ensure safety and legal compliance.
- v) Monitoring and auditing all waste contractors working for the Institution.
- vi) Provision of appropriate training for all personnel who have responsibilities for waste management.
- vii) Coordinating the gathering of, and supplying all relevant information to appropriate enforcement agencies, when information relating to waste management is requested.
- viii) Investigation of any incidents or spillage relating to all type of hazardous and general waste management.

Supporting staff is responsible for:

- i) Overseeing the day to day delivery of general waste and their recycling services.
- ii) Monitoring the performance of the College contractor against the contract agreements.
- iii) Liaising with the "Environment Sustainability Management Cell" to establish standard procedures for managing waste on the College campus.
- iv) Operational monitoring of waste management systems across the campus.
- v) Compiling waste transfer data and statistics notes for centrally managed waste and recycling collections.

Heads of the Department are Responsible for:

- i). Non-hazardous Wastes Ensuring that no hazardous waste is disposed of through the general or waste recycling streams.


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ii). Hazardous Wastes: Nominating a 'responsible person' within their department to coordinate waste disposal for any hazardous or laboratory wastes.

iii). Informing about the nominated 'responsible person' and updating if and when the 'responsible person' changes.

Staff/Supervisor (contractual) will be responsible for:

Disposing of waste responsibly (at both office and campus), through the appropriate waste disposal system (segregation of waste), in accordance with Institutions' policy and procedures.

Students will be responsible for:

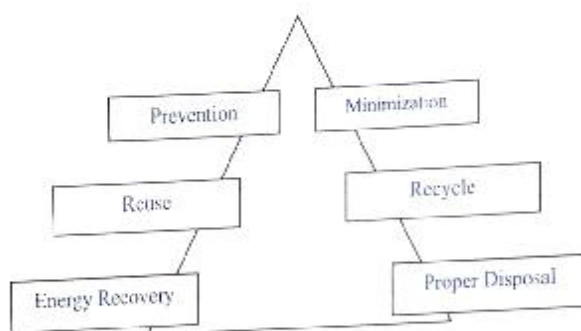
i) Disposing of waste responsibly, through the appropriate waste disposal system, in accordance with College policy and procedures.

ii) Reporting any problems related department/laboratory waste or waste collection procedure to the 'Head of Department'.


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Action Plan

It will be mandatory on the part of the Head of the department/ Principle Investigator (Project)/ in-charge (Animal House) to report changes/additions in hazardous waste generation and steps taken to reduce generation of waste per unit of production. As per the Hazardous Waste regulations, Institution can store hazardous waste for a period not exceeding 90 days and shall maintain a record of sale, transfer, storage, recycling and reprocessing of such wastes. The waste could either be recycled/reused or disposed of in captive or common treatment, storage and disposed or incinerated, as proposed in the waste hierarchy list (Fig. 1). Inventories of 'end of life' consumer products such as e-waste are also required to be made.



Rajesh
Principal
Radhakrishna Institute of Technology
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Fig. 1. Waste Hierarchy list in order of preference from the most favorable (top) to the least (bottom).

Waste avoidance and waste minimization at source in the hierarchy of waste management, waste avoidance and waste minimization have to be attempted first, for which dissemination of information on technological options should be a continuing exercise. Promote implementation of recovery of resources such as solvents, other reagents and by-products as well as re-generation of spent catalysts in a time frame manner. Reuse, recovery and recycling of non-hazardous waste Institution will explore options/ opportunities of reusing, recovery and recycling of nonhazardous waste in an environmentally sustainable manner. Paper waste is sold recycle for make paper board and packing material. Which is environmentally benign? Safe disposal of hazardous waste for the waste which cannot be recycled/ reused, safe and environmentally sound disposal will be adopted depending upon waste category. Design and operation norms of disposal facilities should be strictly adhered to as

per the guidelines. Common treatment plant for the departmental and house hold waste established and the degradable and non-biodegradable are segregated and treated according to their physical nature by municipal corporation, Khordha.

Note:

a) Animal house/bio-medical waste management and disposal will be governed by Bio-Medical Waste (Management and Handling) Rules, 1998, MoEF, Gov. of India.

Glossary

Hazardous Waste

Waste that causes substantial or potential threats to public health or the environment e.g. Acids, Pesticides, Fluorescent Tubes, Alkaline Solutions, Chemicals, Batteries, Solvents, Computer Monitors, CD'S, and Scanner etc. Recycling the diversion of waste away from landfill or incineration and the reprocessing of those wastes 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 who oversees the wastes to be removed from the premises at which it was produced or is being held.

According to United Nations Statistics Division (JNSD), waste are "materials that are not prime products (that is, products produced for the market) for the generator has no further use in terms of his/her own purposes of 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." Incidents that are distinguished from accidents in terms of being less severe. Segregation An activity where waste or materials are kept separate according to chemical and/or physical properties to facilitate waste handling and/or processing.


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Green Campus Policy

Radhakrishna Institute of Technology &
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POLICY TOWARDS GREEN CAMPUS

Radhakrishna Institute of Technology & Engineering is located in the Khordha, Odisha. Besides, the Management is of the firm belief that the campus should be aesthetic with greenery and abundant trees, plants and saplings to boost both the physical and the emotional health of the students and faculty members, office staff and all the users of the campus.

The following are the policy of the Institution towards maintaining the Green Campus:

1. Maintenance of already existing greenery.
2. Planting of saplings, plants periodically.
3. Consciously striving towards less use of Paper
4. Plastic to be banned within the campus
5. Digital library with facilities for e-learning
6. Cleanliness drive through the NSS wing.
7. Usage of LEDs in the campus.
8. Green audit to be conducted
9. Rainwater re-charging unit in the campus
10. Sensitization programs to be organized towards maintenance of green campus.

The Principal ably supported by the Management, Faculty members, students and all the faculty members to strive towards the maintenance of Green Campus, thus contributing to a cleaner India and sensitizing the future generations about the same.


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Radhakrishna Institute of Technology
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Plastic Ban Policy

Radhakrishna Institute of Technology &
Engineering, Bhubaneswar

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Plastic Ban Policy

Radhakrishna Institute of Technology and Engineering, Khordha, Odisha following the global urge for sustainable environment and sustainable development decide to ban the use of all kinds of plastic in the College campus.

- a) The institution shall undertake a systematic campaign to reduce the usage plastic, especially of the single use plastic.
- b) The use of single-use plastic items by the stakeholders is detrimental to the environment, public health, and welfare of the society.
- c) The distribution of single-use plastic items requires utilization of natural resources and results in the generation of greenhouse gas emissions.
- d) Single-use plastic items contribute to environmental problems, including litter in the landscape, drains, rivers and streams, and the ocean.
- e) Single-use plastic items impose unseen costs on the stakeholders, local governments, the state, and environment and constitute a public nuisance.

Radhakrishna Institute of Technology and Engineering, Khordha, Odisha therefore declares that it should ban the use of single-use plastic items:

1. Ban the use of single-use plastics in canteens, hostels and in all the premises of the College.
2. Conduct awareness sessions, training programmes and workshops on the harmful impacts of single use plastics.
3. Encourage students, faculty and administrators to avoid bringing non-bio degradable plastic items to the institution.
4. Encourage students to sensitize their respective households about the harmful effects of plastics and make their households 'plastic free'.
5. Mandate all departments/offices to avoid the use of plastic water bottles, encourage use of alternative solutions like jute files, paper folders, cloth bags, paper bags etc. for programmes, instead of plastic bottles, bags, covers and other goods on the campus.
- 6 The College shall make provisions to provide steel cups and plates for serving food on the occasions of programmes organised by different clubs and associations.

[Handwritten Signature]
18/8/23
Principal

Principal
Radhakrishna Institute of Technology
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Liquid Waste Management System (STP)

Radhakrishna Institute of Technology & Engineering, Bhubaneswar

(BPUT affiliated, AICTE approved & NAAC accredited)



Sewage Treatment Plant

Process of sewage treatment:

1. All sewage of campus collected at raw water tank.
2. Sewage pumps out from raw water tank and send to clarify water tank by pumping motor.
3. In clarify tank sewage treated by airflow which is flowed by hi speed air blower.
4. Partially treated or clarified water comes in another tank called circular tank.
5. In circular tank water treated and partially treated water self-flow in another tank called treated water tank and remain raw water set down in bottom and this water again pumps out and send to clarify tank and again above mentioned processes repeat.
6. In treated water tank water almost at clean stage.
7. This treated water passes through filter mechanism which is sand filter and carbon filter.
8. After this processes water fully treated and ready to use.
9. Treated water used in gardening purpose.

Principal
Radhakrishna Institute of Technology
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Bills of Selling of e-Waste

ECOKART TECHNOLOGY PVT. LTD

6th Floor, Esplaned One Mall
Rasulgarh, Odisha – 751010

Date: 23-Jan-2023

To

RITE , Bhubaneswar
Plot No – 1, IDCO Industrial Estate,
Barunei, Khordha - 752056

1	MOTHER BOARD	6	500	3000
2	MONITOR	1	500	500
3	UPS BATTERY	13	250	3250
4	MOUSE	9	50	450
			TOTAL	5400

Santosh Mahapatra

Signature

Ecokart Technology Pvt. Ltd

Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

ECOKART TECHNOLOGY PVT. LTD

6th Floor, Esplaned One Mall
Rasulgarh, Odisha – 751010

Date : 20 Jan 2022

To

RITE , Bhubaneswar
Plot No – 1, IDCO Industrial Estate,
Barunei, Khordha - 752056

SL NO	DESCRIPTION	QNTY	RATE	AMOUNT
1	SMPS	13	150	1950
2	KEYBOARD	50	50	2500
3	CPU FAN	15	60	900
4	MOTHER BOARD	8	500	4000
5	MONITOR	2	500	1000
			TOTAL	10350

Santosh Maharrana
Signature
Ecoart Technology Pvt. Ltd


Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

ECOKART TECHNOLOGY PVT. LTD

6th Floor, Esplaned One Mall
Rasulgarh, Odisha – 751010

Date : 28 Jan 2021

To

RITE , Bhubaneswar
Plot No – 1, IDCO Industrial Estate,
Barunei, Khordha - 752056

SL NO	DESCRIPTION	QNTY	RATE	AMOUNT
1	SMPS	17	150	2550
2	KEYBOARD	35	50	1750
3	CPU FAN	9	60	540
4	MOTHER BOARD	5	500	2500
			TOTAL	7340

Santosh Maharana
Signature

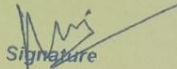
Ecokart Technology Pvt. Ltd


Rishabh
Principal
Rishabh Institute of Technology
and Engineering, Bhubaneswar

Bills of Selling of Paper Waste
(Old Newspaper, Magazines & other paper waste)

BILL					
MISHRA NEWS PAPER AGENCY					
At/Po-Saradhapur, Dist-Khordha, PIN-752055					
Mob : 9090041025					
Date	21/2/23	No			
Name	Radhakrishna Institute of Technology & Engg.				
Address	IDCO Industrial Estate, Khordha.				
Sl. No	Particulars	Qty.	Rate	Amount	
				Rs.	Ps.
	Old news paper and magazines				
	120.5 X 9 Price/kg			10,175	00
TOTAL				10,175	00

(Rupees Ten thousand one hundred one hundred only)
Seven hundred five paise

Signature 


Principal
 Radhakrishna Institute of Technology
 and Engineering, Bhubaneswar

BILL

MISHRA NEWS PAPER AGENCY

At/Po-Saradhapur, Dist-Khordha, PIN-752055

Date 7/2/22 Mob : 9090041025 No.....


Name Radhakrishna Institute of Technology & Engineering

Address IDIC Industrial Estate, Khordha

Sl. No	Particulars	Qty.	Rate	Amount	
				Rs.	Ps.
	<u>Old Papers & magazines</u>				
	<u>752 kg</u>		<u>8.57/- per kg</u>	<u>6392</u>	
			TOTAL	<u>6392</u>	<u>00</u>

(Rupees Six thousand three hundred ninety two only)

Signature


Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar.

BILL

MISHRA NEWS PAPER AGENCY

At/Po-Saradhapur, Dist-Khordha, PIN-752055

Mob : 9090041025

Date: 21/11/21

No.....

Name Radhakrishna Institute of Technology and Engg.

Address IDU Industrial Estate, Baramuni, Khordha

Sl. No	Particulars	Qty.	Rate	Amount	
				Rs.	Ps.
1	Old news paper				
2	Magazines				
	950 X 8 per kg		81	7840	00
TOTAL				7840	

(Rupees Seven Thousand Eight hundred forty only)

Signature

Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

BILL

MISHRA NEWS PAPER AGENCY

At/Po-Saradhapur, Dist-Khordha, PIN-752055
Mob : 9090041025

Date... 6/6/2015

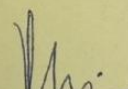
No.....

Name Radhakrishna Institute of Technology
Bhubaneswar

Address PDLO Industrial Estate
Khordha

Sl. No	Particulars	Qty.	Rate	Amount	
				Rs.	Ps.
	890 news paper 43 magazines	592	7/pc kg.	4186	
TOTAL				4186	00

(Rupees Four thousand one hundred eighty six only)


Signature



Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

Chemical Waste

Notice: - Hazardous and Non-Hazardous Waste Management by Chemistry Department

Radhakrishna Institute of Technology &
Engineering, Bhubaneswar
(BPUT affiliated, AICTE approved & NAAC accredited)



Ref.No. RITE/2020-21/BS&H/ 7

Basic science & Humanities (BS & H)

Circular

Date: 12.05.2021

In Chemistry Laboratory, there is use of some concentrated acids, bases, solids and liquid reagents and few hazardous chemicals to perform the experiments. Several measures are taken to store and disposal of chemical waste:

1. Hazardous chemicals are kept separately in the lab out of reach of students.
2. Students are made aware about the harm of chemicals and instructed to handle chemicals carefully.
3. Students are advised to wear lab coat during practical performance.
4. Concentrated chemicals are used in the guidance of the teacher.
5. Broken glassware and outdated chemicals are disposed of separately.
6. The chemicals i.e. liquids and reagents are diluted enough before throwing in the sink.
7. Drains are washed with excess water to dilute the effect of chemicals.
8. Some liquids are properly treated before disposal.


Chemistry Lab. In-charge


Head of Department

Copy to:

1. Principal,
2. IQAC/Concerned Lab In-charge

Chemical Waste

Notice: - Hazardous and Non-Hazardous Waste Management by Chemistry Department

Radhakrishna Institute of Technology & Engineering, Bhubaneswar
(BILT affiliated, AICTE approved & NAAC accredited)



Ref.No. RITE/2019-20/BS&H/1

Basic science & Humanities (BS & H)

Circular

Date: 12.11.2019

In Chemistry Laboratory, there is use of some concentrated acids, bases, solids and liquid reagents and few hazardous chemicals to perform the experiments. Several measures are taken to store and disposal of chemical waste:

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Chemistry Lab In-charge


Head of Department

Copy to:

1. Principal,
2. IQAC/Concerned Lab In-charge


Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar