

### RAJASTHAN

# 7.1.3. Facilities in the Institution for the Management of the Degradable and Non-Degradable Waste

As stated in the University's Mission Statement 'To prepare future global leaders by providing an environment of excellence in academics, research, technology-driven learning cross-cultural exposure, holistic development and enabling them with a commitment to societal & environmental responsibility', AUR is committed towards environmental consciousness and initiate action accordingly. Amity University believes in "Green Campus and Healthy Living". A healthy environment influences the academics and work environment deeply. The university gives due importance to 3 'R' i.e. reduce, reuse and recycle of waste and provide adequate infrastructure to cater Waste management (solid, liquid, laboratory, and e-waste). While the overall emphasis is to reduce waste generation and segregation of waste at the source, strategies/systems are in place for reusing and recycling the waste. The University 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 minimum natural resources are consumed. Waste management involves collection, segregation, transportation, re-processing, recycling and disposal of various types of wastes. The University has proper management systems for Solid, Liquid and E-waste. Environmental initiatives like use of Rainwater Harvesting, Sewage Treatment Plants, Zero Water Discharge No Smoking Zones, Garbage Disposal System, amongst others, have been implemented. The University is almost paperless as most of the documents, forms, payments, have been shifted to online mode. Environment consciousness is embodied in the heart of the college by tree plantations from NSS/ NCC/ Unnat Bharat teams periodically. Students are also encouraged to use parts of old equipment and infrastructure in designing artistic pieces/projects from the junkyard wastes. Amity University Rajasthan strongly believes in environment friendly campus concept and has initiated appropriate practices towards zero waste management since its inception.

The waste management practices are divided into four parts:

- 1. Solid Waste Management
- 2. Liquid Waste Management
- 3. Biomedical waste management
- 4. E-Waste Management



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- 5. Waste Recycling System
- 6. Hazardous Waste & Biomedical Waste

#### Solid waste management:

- ➤ Two garbage houses, one each in two different locations of the campus, are available for dry waste: The dry waste and plastic is disposed through a vendor who collects and takes it to the Municipal Dump yard.
- ➤ On campus compost preparation through pits available for producing manure from wet (organic) waste and horticulture waste to be used in gardens as manure.
- > The mess food waste per day from canteens is disposed through a piggeries contractor. The Mess food waste per day from canteens is taken by a piggeries vendor.
- Polythene-free campus promoting use of substitutes/ biodegradable material. Ban on single-use plastic
- ➤ Incinerator facility in girl's hostel to dispose of used sanitary pads.
- ➤ Classified color-coded dustbins are available for different types of waste.



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Circular on ban on polythene bag and other plastic packaging



AMITY UNIVERSITY **RAJASTHAN** 

Jaipur - Dethi NH 11 - C JAIPUR (Raj.) - 303 002 Tel: 01426 - 405678

Date: 1" Aug 2022

#### ALL VENDORS TO NOTE

Single Use of Plastic like Cups, plates, glasses, straw, cutlery, knives and any other item is prohibited inside Amity University Rajasthan Campus with immediate effect.

By Order:

A SILVA (Gp Capt (Retd) a Mud Mar) Director Administration AUR

Amity City Office: Amity House, C-119, Lal Kothi Scheme, Behind Vidhan Sabha, JAIPUR (Raj.) - 302 016 Tel. 0141-4735000, 2744350



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Notice on Ban on single-use plastic





Garbage house on the campus.

Sanitary Pads Incinerators in Girls hostel

#### Liquid waste management and waste water recycling system

The liquid wastes at Amity University Rajasthan is generated from different sources like Hostel Blocks, Academic Blocks, Laboratories, Faculty Housing, Mess, Food outlets/Cafeterias and Laundry effluent. The above waste is treated through Sewage Treatment Plant (STP) & Effluent Treatment Plant (ETP) setup in the campus with a capacity of 7.5 lakh LPD.

- Water after treatment is sent to a treated water lake, water from lake used for horticulture for plantation/lawns through an auto irrigation system. Fountains in the lake ensure proper aeration and as the process of use is dynamic stagnation does not occur and hence there is no bad odor.
- ➤ Carp fish breeding is done in the lake which prevents algal growth by consuming it, thus keeping the lake clean.
- > Treated water is also used for the cooling tower of chiller plants and for the flush system off our hostels.
- The sludge settled in STP is removed and is dried on drying beds and used as manure for the gardens. Therefore, the entire wastewater generated in the campus is treated and reused.



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Sewage Treatment Plant (STP) at Amity University Rajasthan



Certificate of STP water test report

Artificial Lake

#### **Biomedical waste management**

- There is no biomedical waste as only a basic medical room for first aid is available on the campus. Injection needles are disposed through needle incinerator.
- ➤ Lab bio medical waste are disposed through Standard Protocols
- ➤ The University has an Institutional Biosafety Committee (IBSC) abiding by the guidelines set by Department of Biotechnology (DBT) on Biosafety of recombinant DNA research and Biocontainment, 2017, to cater and monitor biological and chemical hazards including microbial pathogens, their use and safe disposal.
- Interactive webinars are also held for awareness and management of biomedical and other wastes.



### RAJASTHAN

No : BT/IBKP/540/2021

Dated: 09-Dec-2021

#### OFFICE MEMORANDUM

Subject: Nomination of DBT representative in the IBSC of Amity University Rajasthan (AMITY-R-775), Jaipur.

- In accordance with the Notification of the Ministry of Environment and Forests vide Gazette Notification No. GSR 1037 (E) dated 05.12.1989, notified under the E.P. Act 1986, the Department of Biotechnology (DBT) had evolved the "Regulations and Guidelines on Biosafety of recombinant DNA Research and Bio containment, 2017" for achieving personnel and environmental safety in the use of genetically manipulated organisms in research, manufacture and applications. The constitution of the Institutional Biosafety Committee (IBSC) is madatory in R&D Centers at the institutions/universities/ industries/ any other organization which intends to carry out or are engaged in research activities involving genetic manipulation of genetic materials, microorganisms, plants or animals.
- In conformity with the above, institutions engaged in genetic engineering research constitute their IBSCs and the department nominate its representatives in all such committees. Accordingly, Dr BHARTI MALHOTRA, Sr. Prof. and Head, Dept of Microbiology, , SMS Medical College, Jaipur, Jaipur, RAJASTHAN has been nominated to act as a DBT representative in the IBSC constituted at Amity University Rajasthan (AMITY-R-775), SP-1; Kant Kalwar, RIICO Industrial Area, NH-11C,, Jaipur, Rajasthan, Jaipur, RAJASTHAN-303002.

The complete composition of the IBSC is as under:

Chairman

Dr BHARTI MALHOTRA, Sr. Prof. and Head, Dept of Microbiology, . SMS Medical College, Jaipur, Jaipur, RAJASTHAN

: Dr Manali Datta, Member Secretary, Jaipur, RAJASTHAN

Outside Experts

: Dr M. Krishnamohan, Outside Expert, Jaipur, RAJASTHAN## Dr Nilima Kumari , Outside Expert, Sawai Madhopur, RAJASTHAN

Biosafety Officer

: Dr Sudhir Mehta , Biosafety Officer, Jaipur, RAJASTHAN Dr Desh deepak Singh, Internal Member, Jaipur, RAJASTHAN## Dr G.K.Aseri, Internal Member, Jaipur, RAJASTHAN## Dr Sanket Kaushik, Internal Member, Jaipur, RAJASTHAN

- The DBT nominee serves as link between department and the respective IBSC. The nominee should ensure that:

  - handbook on IBSC, Third revised edition, September 2020 is followed by IBSC,
     the committee has been constituted as per the norms of the guidelines,
     the Recombinant DNA Safety Guidelines are strictly followed in the company,
     the IBSC meets regularly (at least twice in a year) to review the ongoing activities
    and provide yearly reports to RCGM/ DBT in the prescribed proforma,
     all the activities within the purview of the guidelines are in the knowledge of
    RCGM/DBT and to guide the IBSC on biosafety issues.
     the IBSC will follow the 'Simplified Procedures/Guidelines on Exchange(inter-state and inter-institutional supply/
    receipt within India), import and Export of Genetically Engineered Organism and Product(s) thereof for research
    Purpose', as per Department's OM dated 22.09.2015 and its revised version issued vide DBT OM dated 17.01.2020.

    He/she will work for 3 years on the respective committee. On the expiry of term of nominee, institution/
- He/she will work for 3 years on the respective committee. On the expiry of term of nominee, institution/ organizations are required to reconstitute its IBSC in prescribed proforma.
- The DBT, on the expiry of the term of its nominee shall re-nominate or appoint a new nominee, and such nomination shall be communicated to the institutes/ organizations.
- Any special invitee/s to IBSC should be communicated to RCGM/ or taken prior approval.
- The IBSC of the institution will meet at least twice in a year. The institutes having the IBSC are required to submit yearly report of progress (1st January to 31st December) within one month, following the expiry of the period of Progress Report to the DBT for enabling the proper monitoring and consolidation of this information by the RCGM and the Government.

The institute will meet the TA/DA & honorarium to the DBT nominee as per the GOI norms.

**To** Dr Vinay Sharma, Chairman, Jaipur, RAJASTHAN

- Copy to:

  1. Dr BHARTI MALHOTRA, Sr. Prof. and Head, Dept of Microbiology, , SMS Medical College, Jaipur, Jaipur, RAJASTHAN

  2. Dr Sudhir Mehta , Biosafety Officer, Jaipur, RAJASTHAN

डॉ. नितिन कुमार जैन / Dr. NITIN K. JAIN विश्वानिक एक / Scientist F विश्वानिक एक / Scientist F वार्योदेवनोत्तीजी विभाग / Deptt. of Biotechnology विश्वान और प्रोद्यों. मंत्रालय / Mo Science & Tech. भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

**Institutional Biosafety Committee of Amity University Rajasthan** 

E-waste management



### RAJASTHAN

AUR follows a very efficient mechanism to dispose E-wastes generated from various sources. E-wastes generated from computer laboratories, electronic labs, Physics Labs, Chemistry Lab, Biotech Labs, Academic and Administrative Offices. The e-waste includes used or obsolete items like lab instruments, circuits, desktops, laptops and accessories, printer, charging and network cables, Wi-fi devices, cartridges, sound systems, display units, UPS, Biometric Machine, scientific instruments etc. Electrical components such as metal, motor/ compressor, cooling, plastic, insulation, glass, LCD, rubber, wiring/ electrical, air conditioners, washing machines, refrigerators, geyser, thermostat, and electrolyte capacitors are also segregated, and disposed of as per the state government guidelines. All instruments are put to optimal use. All such equipment's which cannot be reused or recycled is being disposed of through authorized vendors.

- ➤ Instead of a new procurement BuyBack option is preferred for technology up gradation.
- ➤ Electronic waste is disposed through M/s Namo E-Waste Management Limited, an ISO 14001:2015, ISO 45001:2018 & R2 Certified Co. The company Head Office is in Faridabad.



Certificate of Electronic waste disposal through M/s Namo E-Waste Management Limited, an ISO 14001:2015, ISO 45001:2018 & R2 Certified Company

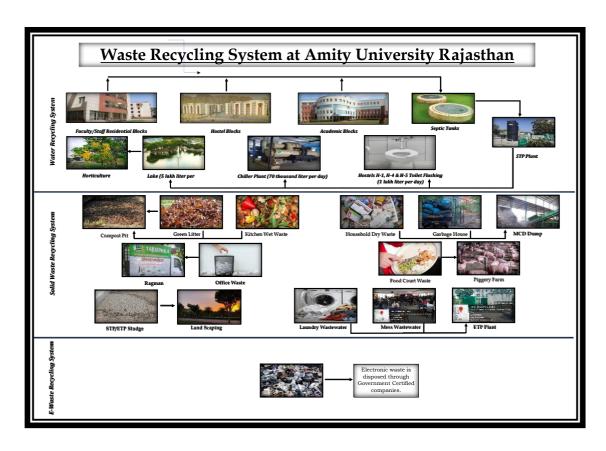
**Waste Recycling System** 



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Amity University Rajasthan gives due importance to 3 'R' i.e. Reduce, Reuse and Recycling of waste. While the overall emphasis is on reduction of waste generation and waste segregation at the source, the University has also initiated appropriate practices towards zero waste management through a well-designed system for solid and liquid waste recycling and reusing.

- Solid Waste Recycling System: Recycling and decomposition of degradable solid waste collected from cafeterias, Hostels, Residential Quarters and horticulture green litter waste into compost is done in compost pits. The compost is used as for horticulture purpose.
- **Liquid Waste Recycling System:** Effluent Treatment Plant (ETP) & Sewage Treatment Plant (STP) process wastewater and sewerage water respectively, utilizing treated water in irrigation and raising the green belt of the University.
- The treated water is also used for flush system of toilets in hostels and the cooling tower of chiller plants.
- The sludge settled in STP is removed and is dried on drying beds and used as manure for the gardens. Therefore, the entire wastewater generated in the campus is treated and reused.

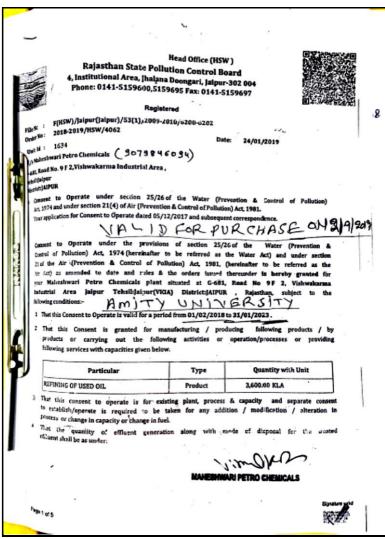


Hazardous chemicals and radioactive waste management



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- AUR has a separate committee for purchase, storage, usage and disposal of hazardous materials/ chemicals and an Institutional Biosafety Committee (IBSC) to cater and monitor biological and chemical hazards including microbial pathogens, their use and safe disposal.
- ➤ Hazardous lab materials chemicals are disposed through standard practices as per AUR policy for disposal of purchase, storage, usage & disposal of hazardous materials/ chemicals
- ➤ There is no radioactive waste generated.
- Oil and lubricants are used for the DG sets (stand by power supply). The same are disposed through a licensed vendor, M/s Maheshwari Petro Chemicals (a Rajasthan State Pollution Control Board approved vendor) periodically and a certificate is taken.

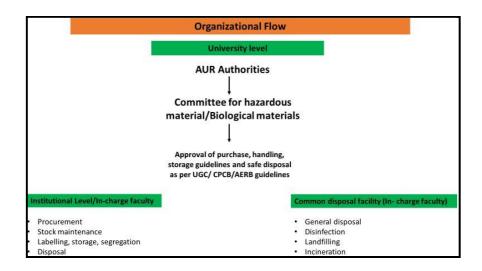


Certificate by M/s Maheshwari Petro Chemicals (a Rajasthan State Pollution Control board approved licensed vendor) for disposal of Oil and lubricants used for the DG sets



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➤ Hazardous Lab Chemicals are disposed through Standard Practices to Neutralize. AUR has a separate committee for purchase, storage, usage and disposal of hazardous materials/ chemicals





### RAJASTHAN



Kant Kalwar, NH-11-C, Jaipur (Rajasthan) 303002 Tel: 01426-405678, Fax: 01426-405679

No.: AUR/REG/5472

Date: 02/07/2021

Committee
To Prepare Policy for Purchase, Storage, Usage & Disposal of Hazardous Materials/Chemicals

A committee is constituted, as under, to prepare 'Draft Policy of AUR for Purchase, Storage, Usage & Disposal of Hazardous Materials/Chemicals'.

1. Prof. Vinay Sharma

Dean - Research

: Presiding Officer

2. Prof. P.V.S. Raju

Director-Amity COAST and

: Member

3. Prof. Pankaj Kumar Pandey Professor & Coordinator - ASET

Chairman-Professional Code of Ethics Committee

: Member

4. Dr. Deepansh Sharma

Assistant Professor - AIMT

: Member

5. Dr. Parul Yadav

Scientific Officer - AUSIC

: Member

6. Mr. Ravikant Pachauri

Manager - IT, AKCDS

: Member

#### Members of committee are requested to:

- (a) Peruse the 'Guidelines' issued by the University Grants Commission (UGC) on the subject and incorporate the instructions/suggestions during framing the 'Draft Policy'.
- (b) Cover/incorporate comprehensive procedures related to Purchase, Storage, Usage and Waste Disposal of Radioactive and other Hazardous Materials/Chemicals in the 'Draft Policy'.
- (c) Incorporate the guidelines for disposal of 'Electronic Waste' in the 'Draft Policy'.

The 'Presiding Officer' of the committee is requested to submit the 'Draft Policy', latest by EOD 09/07/2021 (Friday).





Amity City Office: Amity House, C-119, Lal Kothi Scheme, Behind Vidhan Sabha, Jaipur - 302 015, Telefax- 0141-2372489, 2374111

AUR Committee to prepare, storage, usage and disposal of hazardous materials/chemicals