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LLEGE OF ENGINEERING A

(Sponsored by St. VINCENT EDUCATIONAL SOCIETY) Regd. No. 5782/2000

(Approved by AICTE, New Delhi and Affiliated to JNTU, Hyderabad)

Kondapur Village, Ghatkesar Mandal, Medchal District (Old R.R. Dist) - 501 301. T.S.

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Facilities in the Institution for the management of the following types of Degradable and non-degradable

SCET usually produces about 50Kg of waste per day. While dry waste is given away to recycle, wet waste is used for composting. In the end, none of the waste generated ends up in landfills and incineration. 3R approach and prudent budgeting is adopted in the collection, seggregation and disposal. The generated waste is separated effectively and is being disposed off by the college to make the campus clean and hygienic. There are different ways adopted by the college to manage these wastes. They include

Solid Waste Management

Liquid Waste Management

E Waste Managment

Principal

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Kondapur (V), Ghatkesar (M), Mc

Solid Waste Management

The major solid waste materials generated in the college includes horticultural waste, such as dried leaves or plant clippings from the lawn, paper, plastic, wrappers, glass, card board and food wastes from canteen and hostel. These wastes are collected by placing waste bins at various locations in the campus. Out of this, approximately 40Kg of wet waste is used for composting in a biogas plant and composting. The collected food waste is deposited in the biogas plants. The gas produced from the biogas plant is used for cooking purposes. The hostel mess is equipped with Biogas plant. Other biodegradable waste materials are processed by using bin composting unit in the campus with the firm endeavor of promoting recycling of waste and the manure is utilized in the campus garden.

Initiatives SCET had pledged to actively coordinate cleanliness activities in the college and beyond the campus in accordance with the vision of Swachh Bharat Abhiyan. It commits to continue with this Programs. The broad vision is as follows:

Liquid waste Management

The major liquid waste includes effluents from toilets and the laboratories. These are collected in the separate septic pits and allowed to settle into the soil. Since the effluent pits are not located near any water bodies and the college is situated in the soil area, the effluent water gets naturally filtered. The college has a proper drainage facility to drain off the excess liquid waste in to the municipal drains safely to avoid stagnation. The waste water generated is collected in a pit for filtration and used for greenery liquid Waste may be characterized as follows.

E-Waste Management

In SCET computers, printers and other ICT equipment either disposed off through buyback scheme or the e-waste generated in the campus are collected and disposed through dealers by inviting tenders. Besides this, all kinds of electronic waste, such as battery cells and useless electronic devices, are given away to scrap dealers twice a year. Periodic checking is done to ensure the proper disposal of non-working electronic items E-Waste Management SCET ensures that its usage of technology and generation of e-waste does not impact the environment

Encouraging department and society level activities pertaining to e waste management. Awareness Initiatives Outreach and education are of utmost importance so that all members of the campus community may value the objectives of the policy and aid in its implementation. This is why SCET supports and encourages awareness campaigns, seminars, workshops, conferences and other interactive sessions to facilitate effective implementation of the Green Campus, Energy and Environment policies. Environment-centric Student Societies and Department Activities SCET encourages all the departments and specific student societies like Green society, NSS, NCC and others to organize events, competitions and training sessions that will bring about positive environmental changes at the grass root level. The college supports departments and student societies in moulding the students into active agents of environment protection and conservation.

- More provisions for the disposal of the institutional e-waste.
- Collaboration with e-waste recycling companies to get electronic waste recycled.

Biomedical Waste Managment

As the plastic used in disposable sanitary napkins are not bio-degradable and lead to health and environmental hazards, the sanitary napkins that are collected from the Girls hostel are incinerated to destroy pathogens at the campus level.

Biomedical waste (BMW) is any waste produced during the diagnosis, treatment, or immunization of human or animal research activities pertaining thereto or in the production or testing of biological or in health camps. It follows the cradle to grave approach which is characterization, quantification, segregation, storage, transport, and treatment of BMW.

The basic principle of good BMW practice is based on the concept of 3Rs, namely, reduce, recycle, and reuse. The best BMW management (BMWM) methods aim at avoiding generation of waste or recovering as much as waste as possible, rather than disposing. Therefore, the various methods of BMW disposal, according to their desirability, are prevent, reduce, reuse, recycle, recover, treat, and lastly dispose. Hence, the waste should be tackled at source rather than "end of pipe approach.

BMW treatment and disposal facility means any facility wherein treatment, disposal of BMW or processes incidental to such treatment and disposal is carried out

Only about 10%–25% of BMW is hazardous, and the remaining 75%–95% is nonhazardous. The hazardous part of the waste presents physical, chemical, and/or microbiological risk to the general population and health-care workers associated with handling, treatment, and disposal of waste.

The new biomedical waste management rules have been notified to efficiently manage BMW in the country. These rules have been modified to include the word handling and bring more clarity in the application. In addition, strict rules have been made to ensure no pilferage of recyclables item, no secondary handling or in advent scattering or spillage by animals during transport from the HCFs to the common BMW treatment facility. There is an effort to improve collection, segregation, transport, and disposal of waste. Simultaneously, the role of incinerator in increasing environmental air pollution has been checked by issuing new standards for

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incinerators and improving its operations. The segregation, packaging, transportation, and storage of BMW have been improved. Biomedical waste has been classified into four categories based on color code-type of waste and treatment options. In addition, untreated human anatomical waste, animal anatomical waste, soiled waste, and biotechnology waste should not be stored beyond a period of 48 h. In case, there is a need to store beyond 48 h, the occupier should take all appropriate measures to ensure that the waste does not adversely affect human health and the environment.

The safe and sustainable management of biomedical waste (BMW) is social and legal responsibility of all people supporting and financing health-care activities. Effective BMW management (BMWM) is mandatory for healthy humans and cleaner environment. This article reviews the recent 2016 BMWM rules, practical problems for its effective implementation, the major drawback of conventional techniques, and the latest eco-friendly methods for BMW disposal. The new rules are meant to improve the segregation, transportation, and disposal methods, to decrease environmental pollution so as to change the dynamic of BMW disposal and treatment in India. For effective disposal of BMWM, there should be a collective teamwork with committed government support in terms of finance and infrastructure development, dedicated health-care workers and health-care facilities, continuous monitoring of BMW practices, tough legislature, and strong regulatory bodies. The basic principle of BMWM is segregation at source and waste reduction. Besides, a lot of research and development need to be in the field of developing environmental friendly medical devices and BMW disposal systems for a greener and cleaner environment.

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