Dhirajlal Gandhi College of Technology

Accredited by NAAC | Approved by AICTE & Affiliated to Anna University | Opposite Salem Airport, Salem - 636 309. www.dgct.ac.in.

INDEX

CRITERION: 7.1.3

SOLID WASTE MANAGEMENT

1. The solid waste is segregated into degradable and non-degradable waste by using separate waste baskets and common places in the campus.
2. Paperless communication (e-mail / WhatsApp communication) is a regular practice
3. Usage of one-sided paper is encouraged
4. Metal and other scraps are given to agents for further processing

Segregated Solid Waste in College Campus

Segregated Solid Waste in College Campus

Biodegradable and Non-Biodegradable Dust Bins – CANTEEN

Biodegradable and Non-Biodegradable Dust Bins – First Floor Main Building

Biodegradable and Non-Biodegradable Dust Bins – Garden

LIQUID WASTE MANAGEMENT

SEWAGE TREATMENT PLANT (STP)

The activated sludge process provides an excellent method of treating either raw sewage or more generally the settled sewage. The sewage effluent from primary sedimentation tank, which is thus normally utilized in this process, is mixed with 20 to 30 percent of own volume of activated sludge which contains a large concentration of highly active aerobic micro organisms. The mixture enters an aeration tank, where the micro organisms are mixed together with large quantity of air for about 4 to 8 hours. Under these conditions, the micro organisms will oxidize the organic matter, and colloidal matter tends to coagulate and form a precipitate, which settles down readily in the secondary settling tank.

The settled sludge is recycled to the head of aeration tank, and be mixed with sewage being treated. New activated sludge is continuously being produced by this process and a portion of it being utilized and sent back to the aeration tank, whereas the excess portion is disposed of properly along with the sludge collected during primary treatment after digestion.

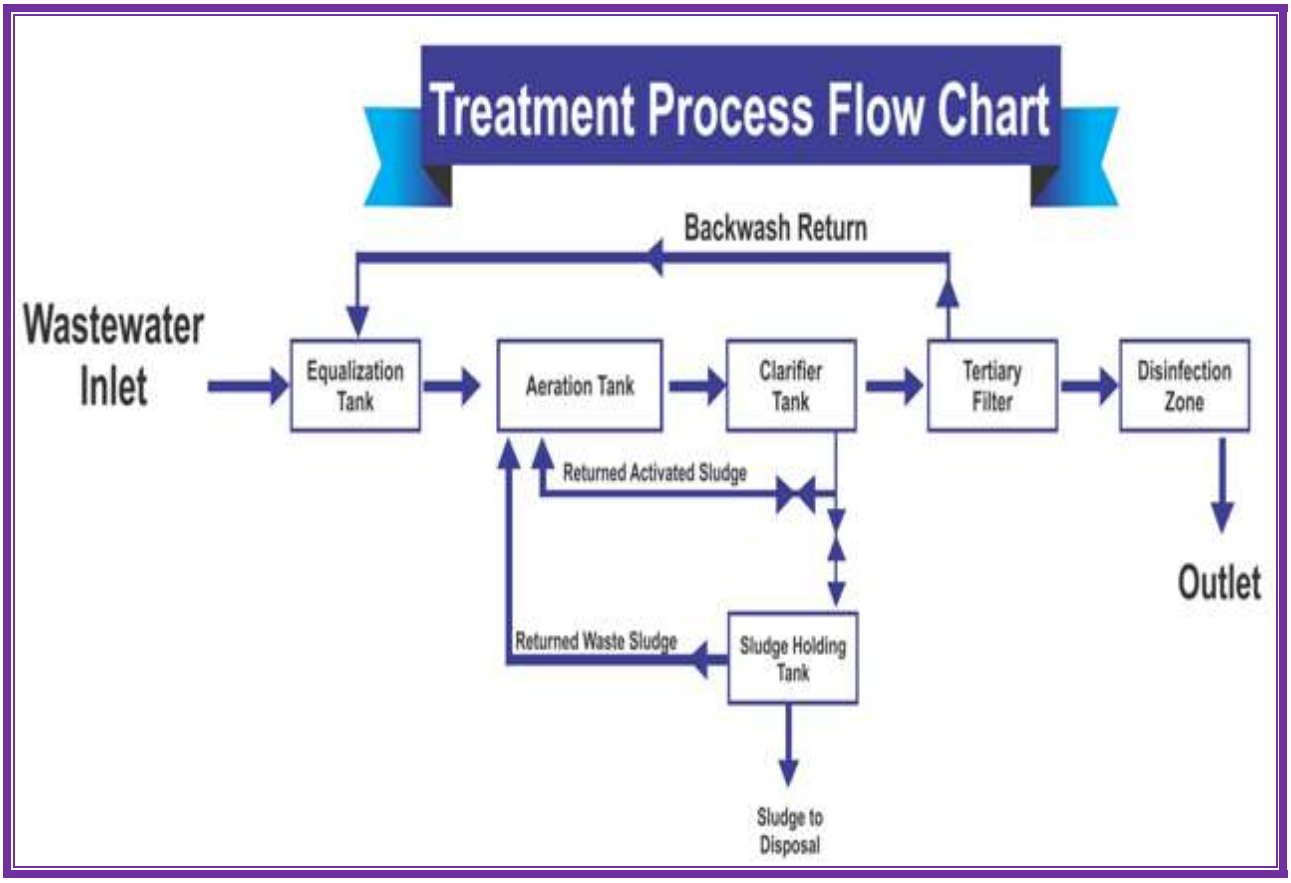
The effluent obtained from a properly operated activated sludge plant, usually having a lower BOD than that of a trickling filter plant.BOD is removal up to 80-95% , and bacteria removal up to 90-95% .Moreover, land area required is less. However, in this process it is necessary to ensure that the supply of oxygen is present, continuous mixing of sewage and the activated sludge and that the ratio of volume of activated sludge added to the volume of sewage is being constant.

Moreover, there is a problem of obtaining activated sludge at the start of new plant.Hence, when a new plant is put in to operation a period of about 4 weeks must required to form sludge during this period all the sludge from the sedimentation tank will be returned through the aeration tank.

VARIOUS OPERATIONS AND UNITS OF TREATMENT

The Following flow diagram show that the removal of girt and solids by screening in grit chamber and primary sedimentation tanks is generally considered after aeration. The pre- removal of these settle able solids is helpful in preventing deposits on aeration devices, and thereby not reducing their efficiencies. Moreover, if not pre-removal may settle down in the aeration tank, and by decomposition interface with the treatment process. Accordingly, girt removal, and primary sedimentation are considered necessary for a activated sludge process.

Sine in this process, it is necessary to keep the sewage as fresh as possible and the sedimentation tank is must required for treatment process. During this period, of primary detention may vary with the size of plant and the characteristics of sewage, but tank size will provide an overflow rate of about 40,000 liters per sq-m of plan area per day. For a depth of about 2.4m the detention time will be about 1.4 hours.



STP PLANT

Outcome

By this STP method, harmful contaminant in water is removed and this water can be used for toilet flushing and gardening purpose.This STP method can be adopted in area where there is water scarcity in places and where the groundwater level is low.

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Dhirajlal Gandhi College of Technology - 2016-17

STP Works

Ledger Account

1-Apr-2016 to 31-Mar-2017

Date		Particulars	Vch Type	Vch No.	Debit	Credit
4-8-2016	To	**Britt Enviro Tech** *Being STP maint. work / Bio micros, Pressure stand, carbon filter, plumbing Accessories & reconditioning charges B.No: 23 / 04.08.16.*	Journal	758	1,79,818.00	
16-10-2016	To	**Water Purification Systems** *Being STP work charges B.No: 1463 / 16. 10.16*	Journal	1257	17,500.00	
6-1-2017	To	**Water Purification Systems** *Being STP work B.No: 1486 / 06.01.16*	Journal	1708	4,150.00	
17-1-2017	To	**Britt Enviro Tech** *Being STP maint. work / Bio micros, Pressure stand, carbon filter, plumbing Accessories & reconditioning charges B.No: 43 / 17.01.17*	Journal	1757	3,52,393.00	
7-3-2017	By	**Britt Enviro Tech** *Ch.No: 807520 issued towards final payment for the B.No: 43 / 17.01.17*	Payment	3256		7,393.00
					5,53,861.00	7,393.00
	By	**Closing Balance**				5,46,468.00
					5,53,861.00	**5,53,861.00**

E-WASTE MANAGEMENT

1. Used batteries and electronics wastes are disposed of through outside agencies

2. Outdated computers with minimum configurations not suitable for the revised regulations of the University are given to the needy school students for their usage or sold as scrap to authorized buyers.

3. The institution is started in the year 2011 and the computers, etc., are still under guarantee period and as such there is no manage hazardous waste.

E - Waste collected in the College Campus

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BUYBACK RETRIEVAL

Ref. No. NUM/3002/2019/SLM/00001 Date 15.04.2019

To DHIRAJLAL GANDHI COLLEGE OF TECHNOLOGY SALEM-BENGALURU HIGHWAY (NH44), SIKKANAMPATTY OPP AIRPORT, SALEM DISTT., SALEM-636309.

Contact Person Name / No.

Cust. Supply order PO Ref 003/DGCT/EEE/UPS BATTERY-05AH/19-20 PO Date 09.04.2019

Invoice No. 2037137302 Invoice Date 15.04.2019

Dear Sir,

Sub : Collecting of BUY BACK BATTERIES & UPS Reg.

With reference to the above subject we hereby authorized our representative to collect the following BUYBACK Materials from your premises as per your PO terms against our product supply.

Kindly hand over the same to the bearer of this letter.

Sl. No.	AS PER PO BUYBACK OFFER MATERIAL	OFFER QTY
1	BUYBACK BATTERY EXIDE TUB 66-AH	20
2		
3		
4		
5		

BUYBACK MATERIAL RETRIEVAL DETAILS FROM CUSTOMER SITE

Sl. No.	TYPE	MAKE	KVA / AH	QTY	UPS Sl. No.
1	TUB	Exide	66AH	20	
2					
3					
4					
5					

Customer / Numeric Remarks if any

Representative Signature

Representative Name / Retrieved Date

Customer Sign

For Novateur Electrical & Digital Systems Private Limited

Customer Name Dr. S. Rajalakshmi

Signature Authority / Seal

Date 24/5/19

Name of the Signature Authority

Branch Name : SALEM

NOVATEUR ELECTRICAL & DIGITAL SYSTEMS PRIVATE LIMITED

Corporate Identity Number : U31909MH2010PTC206467

BUYBACK RETRIEVAL

Ref. No. NUM/3002/2019/SLM/00001 Date 15.04.2019

To DHIRAJLAL GANDHI COLLEGE OF TECHNOLOGY SALEM-BENGALURU HIGHWAY (NH44), SIKKANAMPATTY OPP AIRPORT, SALEM DISTT., SALEM-636309.

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Kindly hand over the same to the bearer of this letter.

Sl. No.	AS PER PO BUYBACK OFFER MATERIAL	OFFER QTY
1	BUYBACK BATTERY 26-AH	60
2		
3		
4		
5		

BUYBACK MATERIAL RETRIEVAL DETAILS FROM CUSTOMER SITE

Sl. No.	TYPE	MAKE	KVA / AH	QTY	UPS Sl. No.
1	TUBULAR	EXIDE	26AH	60	
2					
3					
4					
5					

Customer / Numeric Remarks if any

Representative Signature

Representative Name / Retrieved Date

Customer Sign

For Novateur Electrical & Digital Systems Private Limited

Customer Name Dr. S. Rajalakshmi

Signature Authority / Seal

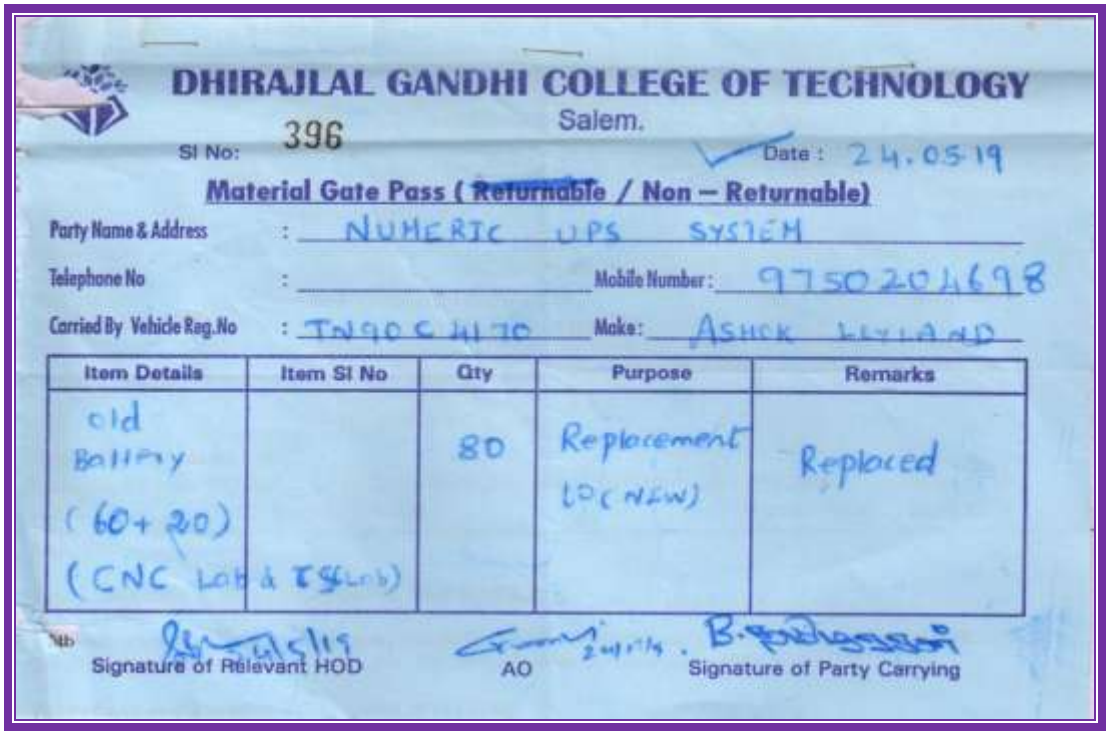
Date 24/5/19

Name of the Signature Authority

Branch Name : SALEM

NOVATEUR ELECTRICAL & DIGITAL SYSTEMS PRIVATE LIMITED

Corporate Identity Number : U31909MH2010PTC206467



DHIRAJLAL GANDHI COLLEGE OF TECHNOLOGY

Salem.

Sl No: 396 Date : 24.05.19

Material Gate Pass (~~Returnable~~ / Non – Returnable)

Party Name & Address : NUMERIC UPS SYSTEM

Telephone No : Mobile Number : 9750204698

Carried By Vehicle Reg.No : TN90C4170 Make: ASHOK LEYLAND

Item Details	Item Sl No	Qty	Purpose	Remarks
old Battery (60+20) (CNC LAB & ESL Lab)		80	Replacement to (NEW)	Replaced

Signature of Relevant HOD AO Signature of Party Carrying

Used batteries are disposed through outside agencies

WASTE RECYCLING SYSTEM

Waste Management Vermiculture

Waste Recycling System

- The broken furnitures are collected at one point in the campus and it was restructured by small racks for file storage purpose for the college.

Students Project on Flexible Pavement using Plastic Waste

Waste Recycling System - Road laying process

Road laying process

- Plastics waste like bags, bottles are cut into a size between 2.37mm and 4.45mm using shredding machine.
- The aggregate mix is heated to 140^{o} c and then it is transferred to mixing chamber.
- Similarly the bitumen is to be heated up to a maximum of 170^{o} c.
- At the mixing chamber, the shredded plastics waste is added over the hot aggregate.
- The plastics waste coated aggregate is mixed with hot bitumen.

Hazardous chemicals and radioactive waste management

- The College does not generate any hazardous chemical or radioactive waste. So this requirement is not needed for our campus.