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## FEASIBILITY REPORT

FOR

### SEWAGE TREATMENT PLANT

(Present Flow Rate 300 KLD)

(Design Capacity 400 KLD)

FOR

M/s SHOOLINI UNIVERSITY, SOLAN

Prepared By

Greentech Enviro Consultants  
Ludhiana

Enviro Consultants

Plot No. 36, ST. No.1, Premier Industrial Complex, Mangli Nichi, Chandigarh Road, Ludhiana-141123

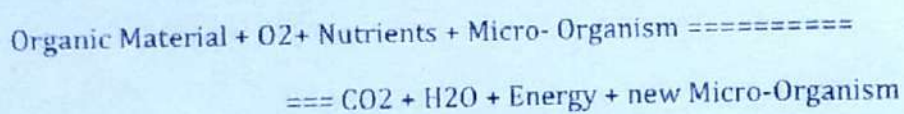
**Technology Adopted**

The proposed treatment will be based on following scheme

1. **Biological Treatment**: The Waste Water will contain only organic impurities, to remove these a state of Art activated sludge Process shall be incorporated.

**Activated sludge Process**: This process was developed in England in 1914 by Arden and Lockett and was named so because it involve the production of an Activated mass of micro-organism capable of aerobically stabilizing the Waste.

The whole process may be described as below.



The total oxidation of Organic Materials by Microorganism takes place in two phases.

The First phase involves the conversion of organic material into CO<sub>2</sub>, H<sub>2</sub>O and new Micro-organism.

In second phase endogenous respiration takes place in which Micro-organism consume their own cell protoplasm for energy and at the end of this phase a non biodegradable residue remains, here Initially Carbonaceous compounds are get oxidized and then nitrogenous materials are converted into Nitrites and Nitrates. In this manner total organic matter, get oxidized. The product of Treatment a well-digested sludge remains, which is very rich in nutrients and may be used as organic manure.

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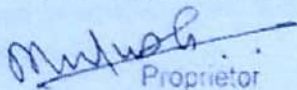
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The Separation of sludge from effluent leaving Bioreactor called mixed liquor happen in Secondary tube settler. The Clear Supernatant leaving Tube Settler will be further treated in Tertiary Treatment.

**2. Tertiary Treatment:** Since the effluent may contains a lot of dissolved organic matter so it may be possible that the secondary treated effluent will contain some traces of these. To remove these there will be a pair of Pressure filters. The Filter media will be Sand and Activated Carbon.

The Principle of filtration is Impaction and Adsorption on Activated carbon surface. The filter Media needs Frequently Back Wash to maintain its efficiency.

For Greentech Enviro Consultants

  
Proprietor