Excutive Summary of the Minor Research Project of Dr. S.S. Sakhare

(PART 1, RESEARCH PROJECT)

COTTON TEXTILE

1. SUMMARY OF THE FINDINGS (WASTE WATER TREATMENT OF COTTON TEXTILE INDUSTRY)

a) Proper Management of the Waste water of cotton textile industry was done by suitable to reuse I the factory premises and pass the treated waste to (CETP) central effluent treatment plant.

b) Some most economical methods were suggested to the concerned textile industry.

c) Proper management of sludge was suggested to make it more economical and pollution free environment in the factory premises. Recycling & re-use of waste water has been suggested.

d) Artificial waste land system was suggested to bring changes in the infrastructure of the concerned industry to make environment pollution free.

By proper Management of the waste from cotton textile industry water can be re-used in the factory premises thereby conservation of water has become possible.

Some suggestion which are very important to make the factory environment free from pollution are suggested.

Economy of the Factory has been achieved which is very important to every industry.

1. A few investigations were necessary at TL in order to i) improve proper wastewater so as to reduce cost of recovered wastewater, ii) decide treatment of ROCHEM rejects which otherwise is energy intensive, iii) disposal of sludge (biological & chemical).

2. It has been found that existing ETP is adequate for treatment of wastewater from dyeing waste. Hydraulics, organic loading, cell retention etc. are as per standard norms and quality of effluent is satisfactory.

3. Use of spent liquor for coagulation may be discontinued since it can add both dissolved iron and increase chloride ions. The former is not desirable in the ROCHEM process.

4. Instead, water works alum or PAC can be used. Dose of alum will be 400-500 g/m3. Ferrous sulphate & lime also can be used. But sludge volume will be more.

5. pH of process wastewater is being reduced to 7.0-8.0. Total dissolved solids comprise mostly of sodium salts. It is reported that process waste contains some material not acceptable to the ROCHEM membrane.

6. It has been found that chemical coagulation followed by biological treatment and adsorption on activated carbon yields satisfactory effluent to be treated by ROCHEM if it is capable of handing/treatment additional 700-900 m^3/d.

7. Primary consideration will be the cost of treated water. Present cost of ROCHEM -0 recovered – water is Rs 40-50/m^3. Cost of treatment of process water by chemical, biological and activated carbon will be Rs 9-10./m^3. Carbon will have to be replaced after 2-3 years. This is based on an operational data in a nearby industry where domestic waste and industrial waste are being treatment and used in co9ndenser cooling. ETC has recommended a carbon called POLLUCARB 6090 can be purchased from M/s Global Adsorbents Pvt. Ltd, 216 AJ.C. Bose road, Kolkata- 700 017. This carbon is suitable TL incurs an expenditure of Rs. 5400/- per day since it contributes 900m^3/day to CETP

CONTRIBUTION TO THE SOCIETY

(GIVE DETAILS)

1) It will facilitate to the conservation of water reusing the waste water in the Factory premises thereby contributing the economy of the industry. Naturally it contribute to the economy of country on society

2) By conservation of water to the textile industry mines thereby helping the nation and society to use the water in the Agriculture filled as lack of range is common phenomena in most part of the country leading to drought situation.

3) By making the industry free pollution we are also making the environment of the other parts of the country pollution free which is very beneficial to makes the people healthy and disease free.