Executive Summary

1.0 INTRODUCTION

Villarasampatti Common Effluent Treatment Plant has been proposed at R.S.No: 107/1,2D,3 Villarasampatti Village, Erode Taluk, Erode District by a cluster 10 Bleaching and Dyeing units. These dyeing units are located within 2 Km radial distance from the CETP. The proposed CETP is located about 8 Km from Erode town and on the western side of Erode. The nearest major human settlement and railway station is Erode and nearest international airport is the Coimbatore airport.

1.1 The CETP has been designed for a capacity of 300 KLD. It is mandatory that effluent generated should be treated to the standards prescribed by Tamilnadu Pollution Control Board (TNPCB) for disposal into inland water bodies, and also directed to go for zero discharge concept. Hence, the proposed common effluent treatment company has the responsibility to treat effluents generated from the member units on zero discharge concepts, so that the treated effluent will be reused in the process itself.

1.2 **List of VCETP members and effluent quantity generated**

S.No	Name of the unit	Effluent generated	Share % in CETP
1	KSM Dyeing	70 KLD	22 %
2	SJR Process	20 KLD	7 %
3	Sunmi Process	35 KLD	11.5 %
4	Colour Creations	20 KLD	7 %
5	Rithik colour	20 KLD	7 %
6	Palaniandavar dyers	25 KLD	8.5 %
7	Shri Shadayappa Mill	25 KLD	8.5 %
8	Sakthikumar Process	20 KLD	7 %
9	Colour Arts	25 KLD	8.5 %
10	Jukie colour	40KLD	13 %

2.0 Villarasampatti Common Effluent Treatment Plant (VCETP) has retained ABC Environ Solutions Pvt.Ltd as environmental consultants to undertake a Rapid Environmental Impact Assessment study for the proposed Common Effluent Treatment plant. A draft REIA report was prepared along with terms of reference (TOR). The report provides information on the existing state of environmental conditions vis-à-vis contribution of incremental pollution by the proposed industry. These environmental factors include air quality, surface and ground water quality land, Soil quality, flora, and fauna, health and welfare facilities, transport, communication system, socio-economic aspects etc. The report evaluates the predicted impact of the proposed industries activities on all the above factors. The report also covers the various remedial measures considered by the management of the proposed industries like changes in technological process, air and water pollution control system, solid waste collection,Transport,storage,and disposal, green belt development plans, Rainwater harvesting system along with the environmental management system proposed to be adopted by the industry.

Villarasampatti Common Effluent Treatment Plant has been incorporated as a partnership firm under The Indian partnership act 1932 and registered firm No.262/2007

3.0 MANUFACTURING PROCESS

The Unbleached will be Bleached and Dyed.

- Scouring
- Bleaching
- Neutralizing with acids
- Washing
- Dyeing Process
- Washing with soap/neutralizing with acetic acid/washing
- Fixing and finishing
- Drying
- Finished Product

Water requirement for the manufacturing process is about 310 KLD. Water is extracted from their own respective open well. The total quantity of wastewater generated from the 10 units is about 300 cubic meters per day. The common effluent treatment plant consists of an equalization tank, Biomass reactor, secondary clarifier, clear water sump, chlorination tank and dechlorination tank, pressure sand filter, activated Carbon filter, Effluent collection sump, Ultra Filtration, RO Stage I, RO Stage II, RO Stage III, Multiple Thermal Evaporator, and Solar pans.

The treated effluent will be reused in the process. Reject from the RO process will be taken to MEE. The slurry from MEE will be evaporated in solar pans and dried and disposal to Kumudipundi IWMA Waste management site. As per letter from IWMA they will include VCETP as a member after getting consent to operate from TNPCB. They will collect periodically about 6.4Ton/year of dried sludge will be disposed.

3.1 BASE LINE ENVIRONMENT nb

Survey was carried out during May 2006 to Jul 2007 in an area within 10 km radius of from the proposed CETP, which we considered as project Impact area

a. Meteorology: The Predominant wind directions during summer 2007 were from NW and WNW

b. Ambient air quality: Ambient air quality in both core zone and buffer zone showed the SPM, RSPM, SO2 and NOx are well within the NAAQ standards specified for rural and residential area. Noise Levels monitored in core zone and buffer zones were found to be well within limits. Groundwater samples collected within study area revealed that there is no contamination to water and the quality of water is potable.

c. Soil samples analysis indicates that fertility of the soil is moderate.

d. Socio economic status of the study area revealed that most of the people are working in agricultural and industrial sectors.

4.0 BIOLOGICAL ENVIRONMENT

Flora

The buffer zone of the proposed common effluent treatment plant consists of agricultural lands, waste lands, etc. the core zone is a sandy tract and does not support any major vegetation except thorny shrubs. The semi arid conditions with high temperature and poor rainfall influence the nature of flora.

- The core zone is devoid of vegetation. The buffer zone of the proposed site consists of agricultural lands, waste lands, etc.
- The semi arid conditions with high temperature and poor rainfall influence the nature of flora. In the buffer zone species like, Mango, Tamarind, Bamboo, Neem, Coconut, Lemon.
- The buffer zone is consisting of naturally occurring species as well as agricultural crops.
- The naturally occurring wild species grow in groups. The species diversity is not pronounced in the area.

Fauna

- The core zone does not contain any species except a few common birds like crow, sparrow etc and a few insects.
- In the buffer zone domestic animals like cows, buffaloes, dogs etc. are found. The core and buffer zones do not contain any wild animals like elephants, tigers etc.
- This area neither contains any biosphere, national parks, etc. nor does it not form a breeding ground for migrating fauna.
- There is no national marine park in Erode.

4.1 SOCIO ECONOMIC ENVIRONMENT

- The project is not going to cause any adverse impact on agriculture rather than the agricultural situation will improve due to increase in agricultural land by virtue of increased income of farmers from the secondary sources.
- The project is going to have positive effects like changing on social status and outlook of the individuals due to regular fixed income.
- Employment facilities and other amenities like medical facilities, banking facilities educational standard etc. will further intensified due to project expansion.

5.0 ENVIRONMENTAL MANAGEMENT PLAN

The proposed Unit will effect both positive and negative changes on the pre environmental and ecological status of the area. These changes or impacts, which could be beneficial or adverse, need adequate Environmental Management Plan, so that the adverse impacts are mitigated and the post-project environmental status is restored to as near original conditions as possible. By understanding the cause and effect and designing proper control measures, it is possible to bring the impacts within sustainable limits or sometimes to create even better environment than earlier. The EMP normally include monitoring of treated effluent quality, solid wastes disposal into TSDF, Green belt development, rain water harvesting, storm water collection and recharge into groundwater aquifer, medical facilities for employees, action plan for any emergency situation like fire, and other safety system in operation and maintenance of effluent treatment system.

6.0 CONCLUSIONS

Results of analysis of water, air and soil samples revealed that VCETP will have no impact on the existing water, air and land environment.

Location of the CETP complex in this region would bring about a marginal impact on Air environment due to release of Air pollutants, which is very much below the allowable limits. In plant control measures and updated technologies adopted at the process levels will ensure emission levels to be well within the limits prescribed by TNPCB.However social welfare will be enhanced due to economic prosperity, development of medical and educational infrastructure as well as improvement in levels of direct and indirect employment. In addition, the green belt development as part of the EMP, will improve the ecology and aesthetics in the plant site and neighborhood region.

The location of the plant in the proposed site would bring about sustainable economic prosperity without adversely affecting the environmental quality and lead to better living standards of the residents of Erode and neighborhood.

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