## **International Journal of Civil Engineering and Technology (IJCIET)**

Volume 9, Issue 2, February 2018, pp. 215–226, Article ID: IJCIET\_09\_02\_021 Available online at http://www.iaeme.com/ijciet/issues.asp?JType=IJCIET&VType=9&IType=2 ISSN Print: 0976-6308 and ISSN Online: 0976-6316

© IAEME Publication



# STUDY ON DISPOSAL OF EFFLUENT TREATMENT PLANT SLUDGE OF TIRUPPUR TEXTILE PROCESSING INDUSTRIES

### K. Ravichandran

Research Scholar, Department of Civil Engineering, Karpagam Academy of Higher Education, Coimbatore, Tamilnadu, India

# Dr. R. Sundararajan

Ph.D Supervisor, Department of Civil Engineering, KAHE, Coimbatore, Tamilnadu, India

## **ABSTRACT**

Textile processing industries generate large quantity of effluent from the bleaching, dyeing and in printing process. The dyeing units in Tiruppur have implemented ZLDS either individually or collectively (IETPs/CETPs) and the system is in operation for the past ten years. The sludge generated from the ZLDs of textile processing industries are classified as Hazardous waste as per Hazardous Wastes (M&TBM) Rules. The approved Methods of disposal of solid sludge are incineration & secured landfill (SLF). As incineration and establishing SLF is being costly, there was stagnation in disposal of ZLDs sludge. Recently, the CPCB issued guidelines for using hazardous waste in cement Kiln Power Steel Industry by Co-processing technology. Co-processing is the use of waste as a source of energy, to replace natural mineral resources and fossil fuels such as coal, petroleum and gas in industrial processes. On the basis of the Guidelines, a trial was carried out by M/s. Ultratech Cement Limited, Reddipalayam, Ariyalur, Tamilnadu for check the feasibility of using the said sludge in cement industries for co-processing. Thus, this study reveals the feasibility of using sludge generated from Textile industries in Tiruppur by coprocessing technology in cement industry. This study also reveals the advantage of Co-processing of sludge in cement industry over incineration and SLF.

Keywords: Textile Industry; ZLDs Sludge; Incineration; SLF; Co-Processing.

Cite this Article: K. Ravichandran and Dr. R. Sundararajan, Study on Disposal of Effluent Treatment Plant Sludge of Tiruppur Textile Processing Industries, International Journal of Civil Engineering and Technology, 9(2), 2018, pp. 215–226. http://www.iaeme.com/IJCIET/issues.asp?JType=IJCIET&VType=9&IType=2