

## **ABSTRACT**

The petrochemical industry generates a series of liquid effluents as known as oil sludge during the petroleum-refining process. These effluents contains various heavy metals, solid particles and hydrocarbons which are carcinogenic to human being, hence it must be treated before it can be disposed according to the EQA 1974. Currently, there are various technologies of remediation of the oily sludge and among them is the popular landfarming treatment method which offers cost effective yet environmental friendly. But one of the drawbacks of this method is that it produces a strong unpleasant odour during the sludge processing which comes into the concern of community. This study is about the pre-treatment of the oily sludge by using a closed composting system in order to contain the odour during hydrocarbon biodegradation. Using various materials, chemicals, and physical parameters, the feasibility of this method is studied by evaluating the effect of various conditions, compositions and environments on the degradation of hydrocarbon and odour level. This paper elaborates these findings in details.