

**THE EFFECTIVENESS OF LEACHATE TREATMENT
IN PULAU BURUNG SANITARY LANDFILL
PULAU PINANG**

By
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DECLARATION BY THE CANDIDATE

I Najihah Hanim Mohd Romali, 2003366955 confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.



(Najihah Hanim Mohd Romali)

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ABSTRACT

Leachate is any liquid including any suspended components in the liquid that has percolated through or drained from waste. Leachate causes harm in many ways. Serious environment damage and threats to the community may result from leachate that is being release into the soil, groundwater, river or stream. This is why the issue of leachate is important. The objectives of this study are to determine pH, Temperature, Chemical Oxygen Demand (COD), Turbidity and Total Dissolved Solid (TDS) in leachate and treated leachate, to determine the removal percentage of COD, Turbidity and TDS in leachate treatment plant in Pulau Burung Sanitary Landfill, to ensure that all parameters listed above comply with Environmental Quality Act 1974 (Environmental Quality (Sewage and Industrial Effluents) Regulations 1979) and to determine the effectiveness of leachate treatment method practiced at Pulau Burung Sanitary Landfill. The main scopes of this study are to study the procedure in leachate treatment plant in Pulau Burung Sanitary Landfill, to collect leachate at eight sampling points and to study the parameter limits for leachate in Environmental Quality Act 1974. Research activities were divided into four major categories; sampling, diluting, testing and data analysis. The samples were taken twice a week for three weeks at eight sampling points. From the study that has been carried out, it was shown that pH and temperature were following the standard while COD, turbidity and TDS stated high total removal percentage. So it can be concluded that leachate treatment method conducted in Pulau Burung Sanitary Landfill is effective.

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