



Technical Visit to Bukit Tagar Sanitary Landfill

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On 9 September 2006, a technical visit was organised by the Environmental Engineering Technical Division to Bukit Tagar Sanitary Landfill. The half day visit was attended by 33 participants.

The Bukit Tagar Sanitary Landfill is located about 55 km north of Kuala Lumpur. It is reported as one of the largest state-of-the-art sanitary landfills in the South East Asia region with a total area of 1,700 acres. It is designed to conform to USEPA (United States Environmental Protection Agency) Level 4 landfill regulations with a total capacity of 120 million tones of municipal waste. The current tipping capacity is 1,800 tones per day. The tipping capacity will be expanded to 3,000 tones per day pending on the demand from surrounding local authorities.

The Bukit Tagar Sanitary Landfill operates with 45 management staff working on three shifts. Each refuse cell is isolated from the environment with robust base HDPE (Heavy Density Polyethylene) liner system combined with compacted soil layer targeted at 1×10^{-7} m/s permeability and closed with daily cover. The leachate is collected and sent to an SBR (sequential batch reactor) leachate treatment plant fully equipped with a SCADA (Supervisory Control and Data Acquisition) system. The effluent

from the leachate treatment plant is further treated with reed bed planted with phragmites (green plant reported to have extensive root system capable to absorb residual substance from effluent for growth nutrients). Gas extraction pipes are installed to the fully covered cells for the possible future methane gas collection or power generation.

This is the only sanitary landfill in Malaysia that achieve zero-effluent discharge requirement. The final effluent is pumped and sprayed within the buffer zone for the natural evaporation process to take place.

The members were very satisfied with the visit and found it very informative and useful. ■



(Note: The author feels very much disappointed as some registered participants did not turn up for the visit and thus depriving the opportunity of many other members who wish to join the visit. As a result, ten seats of the coach were un-occupied and part of the food prepared by the host was wasted!)

