

# Technical Visit to Grease Trap Manufacturer VTSB Trading

BUILDING SERVICES TECHNICAL DIVISION

reported by



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On 11 June 2016, 21 participants, including 3 committee members of the Building Services Technical Division, made a visit to a grease trap manufacturer, VTSB Trading.

The 3 speakers – Peter, Eric and Toh – talked about the company profile, technical aspect and design of grease trap and installed systems.

There is a clear distinction between Fat, Oil and Grease (FOG) and each requires using a different type of trap. Food & Beverage (F&B) outlets and wet markets discharge grease and fat while a bus terminal that services buses and car workshops will discharge oil. The local councils have made it mandatory for all these establishments to install FOG traps to get or renew licences for their premises.

It is recommended that Grease Traps or Grease Interceptors (GI) be installed below the wash basins in all F&B outlets. The installed GI is able to remove 99% of the fat with the help of enzyme dosing but the discharge from the GI still contains grease in excess of the Influent Standard of Sewerage Treatment Plant (STP) (refer to extract from “Malaysian Sewerage Industry Guidelines, Section 3 – Sewerage Characteristics and Effluent Discharge Requirements”).



Photo session with the participants

## Design Values

Table 3.1 tabulates the design influent values to be adopted in the design of a treatment plant.

Table 3.1: Design Influent Values

Parameter	Value (g/capita.day)	Value (mg/l)
Biochemical Oxygen Demand (BOD <sub>5</sub> )	56	250
Suspended Solids (SS)	68	300
Chemical Oxygen Demand (COD)	113	500
Total Nitrogen (TN)	11	50
Ammoniacal nitrogen (AMN)	7	30
Total Phosphorus (TP)	2	10
Oil and Grease (O&G)	11	50

So, the discharge from the GI must be diverted to a centralised tank where it undergoes a Pre-Treatment Process (PTP) to bring down the effluent level so as to meet the above influent guidelines. A few F&B projects were mentioned where PTP was not done and the discharge was diverted directly to the Indah Water manhole. Retrofit works were then carried out.

PTP is like a scaled-down waste water treatment plant where the key effluents (grease and fat) are removed. The size of the PTP varies according to the flow rate of the discharge. In one shopping mall for instance, an installation measured 6m x 28m x 6.3m (ht).

After the briefing, the participants visited the factory to see the manufacturing processes. The presentation and visit ended with a buffet lunch hosted by VTSB Trading.

**NOTE:** Engineers should be mindful of social responsibility to the environment and ensure that all FOG generated from their project environments are addressed accordingly and that the discharges are within the stipulated guidelines. ■