Novel Filtration Device for Grease Traps in Food Establishments

Technology Overview

A novel high absorbent and oil degrading mechanism for effective oil removal device was developed. The application is targeted for grease trap at this instance but can be extended to other oil removal applications like offshore oil spills, and wastewater treatment.

Features & Specifications

A prototype device was fabricated and deployed in an actual grease trap for pilot trial. The fabricated prototype has shown promising results in limiting the grease amount in actual PUB grease trap within PUB regulation of 100mg/L throughout the whole deployment duration.

Potential Applications

The application is targeted for grease trap at this instance but can be extended to other oil removal applications like offshore oil spills, and wastewater treatment.

Customer Benefits

Under the Sewerage and Drainage (Sanitary Works) Regulations, all used water from food shops, e.g. restaurants and other eating establishments shall be discharged into the sewerage system via grease traps. It is an offence for any person/establishment who fails to maintain a grease trap properly or to discharge trade effluent containing grease and oil in concentrations greater than 100mg/L (non-hydrocarbon). Often, it may become a situation whereby the F&B establishments may overlook the extent of grease output which results in too much being prduced and not meeting the regulations. Worse still, excess grease may flow into the sewage and blocks up the system or inhibit the reclamation process of waste water.

The current practice by food establishments is to engage a contractor to vacuum out the grease in the grease trap, followed by subsequent disposal. The device enables real time absorbing and degradation of grease, hence helping the grease trap to better adhere to the required regulations.

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