UNIVERSITI TEKNOLOGI MARA

THE EFFECTIVENESS OF GREASE TRAP INSTALLATION IN FOOD STALLS AT BAZAAR MELAWATI, AMPANG.

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Project Paper Submitted In Partial Fulfillment of The Requirementsfor the Degree of Bachelor in Environment Health and Safety (Hons.)

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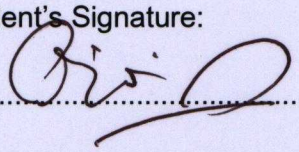
Declaration by Student

Project entitle "The effectiveness of grease trap installation in food stalls at Bazaar Melawati, Ampang" is a presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature, and acknowledgement of collaborative research and disccussions. The project was done under the guidance of En. Mohd Izwan bin Masngut as Project Supervisor and PM Rodziah binti Ismail as Co-supervisor. It has been summited to the Falculty of Health Sciences in partial fulfillment of the requirement for the Degree of Bachelor in Environment Health and Safety (Hons).

Student's Signature:



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Abstract

The Effectiveness of Grease Trap Installation In Food Stalls At Bazaar Melawati, Ampang.

Mohamad Harawi Bin Harun

This is a Cross-sectional comparative studies to find out the effectiveness of the grease trap installed to reduce water contamination due to fat, oil and grease from food stalls, conducted at the Bazaar Melawati, Ulu Klang under Ampang Jaya Municipal Council. The purpose of the study was to determine the level of oil and grease in wastewater from food stalls by comparison of the level of oil and grease (O&G) in the wastewater at the inlet and outlet of the grease trap. To determine the effectiveness of grease trap installed and also to determine whether the effluent released complies with standards of Environment Quality (Industrial Effluent) Regulation 2009 of effluent parameters limits of Standard B. A total of 32 stalls that installed grease traps in Bazaar Melawati were selected for this study. A total of 32 samples of influent and 32 samples of effluent from the food stalls at the bazaar was taken. Questionaires was distributed to food stalls owners to get infomation on maintenance works carried out on the grease trap. Samples of the effluent were analyzed for the level of oil & grease in effluent discharged from the food stall in comparing to the standard. Results of the study conducted showed the effectiveness of the grease trap installed and whether the level of oil and grease discharged complied with the standard. Based on the analysis, the study showed that the mean of the inlet is 5142.94±14616.76 mg/L and mean of outlet is 125.90± 173.93 mg/L. There were mean differences of oil and grease presence at inlet and outlet of grease trap installed at food stalls at Bazaar Melawati. Based on laboratory tests, it was found that there was oil and grease at the outlet of all the stalls installed with grease traps. However, only 15.6% (n=5) grease trap outlet complied with the standard B of Environment Quality Act 1974: Environment Quality (Industrial Effluents) Regulations 2009. Based on this study it also showed that only 56.3%(n=18) of the grease trap installed by the supplier to be effective in reducing oil and grease in the wastewater compare to effectiveness claimed by the manufacturer of 88% to 98% effective. The study also showed that at least 71.9%(n=23) of the respondents maintain grease trap at their food stalls once a month and 28.9% (n=9) respondent maintain their grease traps twice a month. For the purpose of improving the effectiveness of the grease trap in controlling oil and grease the council is recommended to take the following steps: i. Clean grease trap routinely ii. It is strongly adviced to securing a service contract with a qualified pumping contractor for routine inspection and cleaning as required iii. Weekly clean passive type grease traps under the sink iv. Keep a maintenance log v. Monitor all grease trap cleaning and maintenance activities to ensure the device is properly operating vi. Train kitchen staff and other employees about how they can help ensure Best Management Practices are implemented vii. Recycle waste cooking oil.

Keywords : grease trap, oil and grease, wastewater, food stalls, effectiveness.