Title Silver Contamination from Amalgam in Dental

Wastewater of Health Promotion Hospital, Muang District;

Maha Sarakham Province

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Abstract

This research aims to investigate silver contamination from dental amalgam in wastewater of health promotion hospital, Muang District, Maha Sarakham Province, totally 8 hospitals, i.e. the health promotion hospital in Sub-district of Koeng, Non Tae, Nhong Waeng, Tha Toom, Lad Pattana, Khwao, Nhong Jig and Khok Ko. The wastewater was collected at the end of wastewater pipe that discharged from dental process of each hospital. The studied period was between January to May 2016. The silver concentration was detected by atomic absorption spectrophotometer. The statistics used in this study was mean.

The results of silver contamination from dental wastewater of 8 health promotion hospitals showed the average range of silver concentration 0.0197-0.0337 mg/L. The least concentration of silver found 0.0917 mg/l from health promotion hospital of Koeng Sub-district while the highest concentration found 0.0337 mg/L from health promotion hospital of Lad Pattana Sub-District. The obtained results also showed that the difference of silver concentration in each hospitals depended service periods and number of patients.