ABSTRACT

B3 household garbage containing lead in TPS Mulyorejo is a source of environmental contamination that can caused health effects in humans. Impact of lead (Pb) was contains in the B3 waste cause acute and chronic effects to human. Heavy metals in the body will accumulate in hair, bone and soft tissue. Analysis of heavy metals in the hair is one good way to estimate the content of heavy metals in the body. This study aims to identify exposure to lead (Pb) B3 waste to air on hair Pb levels in TPS garbage officers Mulyorejo Surabaya.

In this study was used a descriptive research with cross-sectional approach. The sample was 15 officer of the transport dumper in TPS Mulyorejo Surabaya and drawn by simple random sampling technique. The independent variable was the air Pb levels. The dependent variable is the hair Pb levels and health complaints.

Air Pb levels in TPS Mulyorejo no more than the specified quality standard was 0.0001 mg/Nm3. Pb levels of hairs on the garbage workers were still in the normal range between 0.007 to 1.17 mg/Nm3. Many perceived health complaints include feeling weak, fatigue, shortness of breath, diarrhea, decreased appetite, feeling dizziness, throat irritation, dizziness and back pain. Air Pb levels were normal did not affected hair Pb levels of officer of the transport dumper but the respondents perceived many health complaints. Period and long working hour of the day that affect pile of Pb in the body were excreted through the hair.

Based on the result, the government needs health monitoring and inspections to officer of the transport dumper periodically to detection of health problems early, and then for the officer transport dumper needs to eating nutritious foods, vitamins, and mineral to reduce levels of lead in the hair.

Keywords: air Pb, hair Pb, health complaints, garbage officers