

ENVIRONMENTAL AND BIOLOGICAL EVALUATION OF LEAD**M. Ponnambalam and D. T. Jayamanne***(Div. of Occupational Hygiene, Dept. of Labour, Colombo 5)*

Respirable particulates in air of a selected residential area were collected using Hexhlet samplers at 50 l/min. Spectrophotometric analysis revealed that the concentrations of lead in air were less than 0.015 mg/M³ during normal days. However, the concentrations increased to 2.5 mg/M³ during limited periods of time on 4 to 5 occasions a month, due to other lead-based activities such as recovery of gold from jewellers' waste. The sampling period corresponded to 6 hours.

Blood and urine lead levels of the children of the area were estimated spectrophotometrically. Majority of the children showed lead blood levels more than 60 µg/100 ml and more than 450 µg/l of lead in urine. All these children maintained symptoms of lead poisoning as a result of intermittent exposure to high levels of lead in air.

References**References**

1. Harrison, R. and Laxen, D. P. H. (1981). Lead pollution. Cambridge : University Press.
2. Williams, B. K. et al. (1969). *Br. J. Ind. Med.*, **26**.