

ABSTRACT

Air pollution is a global problem causing diverse risks to human health. Asphalt plant and batching plant are the main industrial sector which are contributing towards air pollution. The main objectives of the study were to measure the particulate matter and to examine the health effects on the workers. Two plants, Asphalt plant located near Bhupian chowk, Thokar Niaz Baig and Batching plant located near Askari X, Airport road Lahore were selected to carry out the work. To examine the health impacts, the sample size for the workers ($n=25$) were taken from both the plants. The result showed that PM concentration in the asphalt plant is high $10830 \mu\text{g}/\text{m}^3$ as compared to the PM concentration at the batching plant which is $8442 \mu\text{g}/\text{m}^3$. The value of NO_2 and SO_2 was higher in Asphalt plant as compared to Batching Plant whereas the CO concentration was same for both for both the plants. Asphalt plant workers were more exposed to the diseases as compared to the batching plant workers. Headache has affected 68% of the workers in asphalt plant and 52% of workers in batching plant. 84% of the workers in asphalt plant and 72% of workers in batching plant were suffered from cough. Headache has significant relation ($r=0.8305$, $\alpha=0.01$) with the prolonged exposure of the workers in the asphalt plant and in the batching plant cough has showed significant relation ($r=0.8978$, $\alpha=0.01$) with the prolonged exposure of the workers.