ABSTRACT

Smoked fish process using coconut shell which is a hardwood can create air pollution with pollutants PM$_{2.5}$. PM$_{2.5}$ in the air can affect human health if inhaled by humans.

This study is an observational with cross-sectional and analyzed descriptively. There were 26 respondents in this study drawn from the population by simple random sampling and using the criteria of inclusion to obtain samples. Interviews were conducted to obtain more detailed information about the studied variables. The independent variables were age, length of employment, medical history, use of PPE, duration to smoked each fish and transportation.

The results of the study, it found that concentration of PM$_{2.5}$ at 8 location of Tambak Wedi village smoked fish exceed environmental requirements. All respondents were female, aged between 24-50 years. The average of service life was 8.8 years, the average time of work each day was 5.2 hours and 20 workers were not using PPE. Health complaints experienced by workers in the form of eye complaints, highest perceived by workers were eye sore (100%), while the highest respiratory complaints perceived by workers were shortness of breath (80.8%).

The conclusion that can be drawn from this study is worker at smoked fish have chance to get respiratory problems and eye irritation. Therefore, workers must use PPE and check their health periodically to health clinics in Tambak Wedi Surabaya.

Keyword: air quality, smoked fish, health complaints