The status of lung’s function is the functional condition of the lung as measured using a spirometer and known through the value of the Forced Vital Capacity (FVC) and Forced expiratory volume in one second (FEP1). The status of lung’s function also affect by individual factors such as age, length of employment, length of service, the use of masks, passive smoking, and body mass index. The main purpose of this study was to identify risk factors for pulmonary function abnormalities of female’s street sweeping in Jalan Ahmad Yani Kota Surabaya.

This research was descriptive with cross sectional design. The research sample was 10 people who working woman’s road sweeping in the Jalan Ahmad Yani Kota Surabaya. The study is using interview questions and pulmonary function test using spirometer. Measurement of the levels of air pollutants such as dust, SO₂, NO₂, and CO each using EPAM 5000 method, Pararosanilin’s method, Saltzman’s method, and Non dispersive infrared’s method. This research using Chi Square test for analysis between dependent and independent variables.

The result is the amount of dust on the third location was 1.33 mg/m³ and NO₂ levels on the first location was 103.6 µg/m³. Both of these parameters have beyond the standard of Peraturan Gubernur Jawa Timur No. 10 tahun 2009. SO₂ and CO levels on three locations still under standards. The resulted of pulmonary function test was 6 of 10 respondents had abnormal pulmonary function that is mild restriction. The analysis between dependent variable (pulmonary function) and independent variables (age, length of work during the day, period of work, passive smoking, use of masks, and body mass index) showed that is only age and pulmonary function variables were significant because the value of phi coefficient is 0.667 which mean above the alpha (5%), while others were not significant because the value of phi coefficient is under the alpha (5%).

The conclusion of this study was the only age has relationship with the status of lung’s function which have significant results. For women workers should wear clean masks while working and pay attention to the length of time worked.

Keywords : abnormal pulmonary function status, air pollution, women’s street sweeper