

**FAKULTAS KESEHATAN MASYARAKAT  
UNIVERSITAS ANDALAS**

**Skripsi, 6 September 2016**

**RESI ARIFA YURNAL, No. BP : 1210333034**

**ANALISIS RISIKO KESEHATAN LINGKUNGAN PAJANAN TOTAL  
SUSPENDED PARTICULATE (TSP) PADA KARYAWAN DI  
DEPARTEMEN PRODUKSI II/III PT SEMEN PADANG TAHUN 2016**

xi + 60 halaman, 10 tabel, 5 gambar, 11 lampiran

**ABSTRAK**

**Tujuan Penelitian**

Industri semen memberikan dampak negatif dalam menimbulkan pencemaran udara di dalam maupun diluar lingkungan kerja sehingga mempengaruhi sistem respirasi. Penelitian ini bertujuan untuk mengetahui tingkat risiko kesehatan lingkungan melalui analisis risiko pajanan TSP pada karyawan Departemen Produksi II/III PTSP tahun 2016 dan majemen risiko dapat dilakukan agar risiko dapat diminimalisasi.

**Metode**

Penelitian ini merupakan penelitian kuantitatif dalam bentuk deskriptif dengan metode analisis risiko kesehatan lingkungan (ARKL) yang bertujuan untuk menghitung tingkat risiko yang diterima suatu populasi akibat adanya pajanan lingkungan. Penelitian ini dilakukan pada 28 Desember 2015 sampai 27 Juni 2016, dengan jumlah sampel sebanyak 32 responden. Teknik pengambilan sampel secara *accidental sampling*. Pengumpulan data dengan wawancara menggunakan kuesioner dan pengukuran konsentrasi TSP dengan menggunakan alat *Staplex Model TFIA series High Volume Air Samplers*. Analisis data secara univariat.

**Hasil**

Hasil penelitian berdasarkan nilai *intake lifetime* pajanan TSP secara *inhalasi* menunjukkan bahwa area *Coal mill* dan *Cement mill* pada karyawan di Departemen Produksi II/III PT Semen Padang berisiko mengalami gangguan pernapasan dengan nilai  $RQ > 1$  dan berdasarkan nilai *intake realtime* pajanan TSP secara *inhalasi* tidak berisiko mengalami gangguan pernapasan dengan nilai  $RQ < 1$ .

**Kesimpulan**

Berdasarkan hasil penelitian *intake lifetime* pajanan TSP secara *inhalasi* area *Coal mill* dan *Cement mill* pada karyawan di Departemen Produksi II/III PT Semen Padang berisiko mengalami gangguan saluran pernapasan pada 30 tahun mendatang Disarankan kepada perusahaan untuk segera melakukan langkah-langkah pengendalian untuk mengurangi risiko gangguan saluran pernapasan pada karyawan.

**Daftar Pustaka** : 30 (1996-2015)

**Kata Kunci** : Analisis Risiko, Departemen Produksi II/III PT Semen Padang, TSP

**FACULTY OF PUBLIC HEALTH  
ANDALAS UNIVERSITY**

**Undergraduate Thesis, 6 September 2016**

**Resi Arifa Yurnal, No.BP 1210333034**

**THE RELATIONSHIP OF THE WORKER'S CHARACTERISTICS WITH  
LUNG FUNCTION IN THE PRODUCTION DEPARTMENT EMPLOYEES  
OF PT SEMEN PADANG 2015**

xi + 60 pages, 10 tables, 5 pictures, 11 attachments

**ABSTRACT**

**Objectives**

The cement industry has negatively impacts in air pollution, both inside and outside the work environment that affect to the respiratory system. The aims of this study was to determine the level of environmental health risks through the analysis of the risks of exposure TSP employee Production Department II / III PTSP 2016.

**Method**

This research was a quantitative research in the form of descriptive analysis method of environmental health risks (ARKL). Which aims to calculate the acceptable level of risk in a population due to environmental exposure. Research was conducted on December 28, 2015 until June 27, 2016. The Number of sample were 32 respondents. The sampling technique used was accidental sampling. Collected data by using questionnaires and interviews TSP concentration measurements by using the tool Staplex Model TFIA series High Volume Air Samplers. The data analysis was done by using univariate test.

**Result**

The results based on the value of the intake lifetime exposure to TSP inhaled indicate that the area Coal mill and Cement mill on the employees in the Production Department II / III PT Semen Padang at risk of developing respiratory problems to the value of  $RQ > 1$  and based on the value of the intake realtime exposure TSP inhaled were not at risk respiratory disorders with  $RQ < 1$ .

**Conclusion**

Based on the research value of the intake lifetime exposure by inhalation TSP indicates that the area Coal mill and Cement mill employees in the Production Department II / III PT Semen Padang at risk of developing respiratory problems due to exposure to TSP. Suggested to the company to immediately carry out control measures to reduce the risk of respiratory disorders in employees.

**Bibliography** : 30 (1996-2015)

**Keywords** : risk assessment, Production Department II/III PT. Semen Padang, TSP