

**DAMPAK AKTIVITAS PEMBAKARAN KERAMIK  
TERHADAP KUALITAS UDARA  
DAN PENGHUNI PERMUKIMAN**

Tujuan penelitian ini adalah untuk mengetahui dampak aktivitas pembakaran keramik terhadap kualitas udara penghuni permukiman di sekitar sentra industri keramik Dinoyo Malang dan pola sebaran polutannya dengan berdasarkan pengukuran terhadap kadar polutan CO, SO<sub>x</sub>, NO<sub>x</sub>, dan debu. Kadar polutan diukur pada 15 titik sampel yang tersebar pada jarak berbeda sesuai dengan arah angin. Penelitian dilakukan pada bulan Januari 1997 dan Februari 1997.

Hasil pengukuran konsentrasi polutan menunjukkan bahwa polutan debu telah melampaui Nilai Ambang Batas Baku Mutu Lingkungan Propinsi Jawa Timur, SK.Gub No.129/1996). Berarti pada lokasi tersebut telah terjadi pencemaran debu. Hasil analisis dengan simulasi dan tumpang susun pola sebaran polutan debu menunjukkan bahwa pola sebaran debu dipengaruhi oleh arah dan kecepatan angin. Hasil analisis statistik persepsi masyarakat di sekitar pabrik menunjukkan adanya perbedaan jelas dalam persepsi masyarakat terhadap gangguan kenyamanan terhadap jarak responden dari sumber pencemar. Responden pada jarak 200m-250m dari sumber pencemar merasakan adanya gangguan kenyamanan. Berdasarkan data yang diperoleh dari Puskesmas, persentase penderita ISPA di Puskesmas Dinoyo lebih tinggi dari pada Puskesmas Mojolangu yang tidak memiliki industri keramik. Hal itu memberikan indikasi bahwa pada lokasi penelitian terdapat gangguan kesehatan berupa ISPA.

## THE IMPACT OF CERAMICS COMBUSTION ACTIVITIES TO THE AIR QUALITY AND ON THE INHIBITANTS

Anna Catharina Sri P. S. <sup>1)</sup>, Achmad Djunaedi <sup>2)</sup>, S. Djalal Tandjung <sup>3)</sup>

### Abstract

The objectives of this research are to describe the impact of ceramic combustion activities to air quality and toward health and pleasant of the inhabitants around the ceramics industrial zone in Dinoyo Malang, and distribution pattern of the pollutant, based on the measurement of pollutants concentration of CO, SO<sub>x</sub>, NO<sub>x</sub> and dust particles in the air. Measurement of pollutant concentration in the air was carried out at 15 sample points, which spread in different direction according to the wind direction. The research was conducted during the month of January 1997 and February 1997.

The measurement result of pollutant concentration indicate only dust particle that were beyond the threshold limit, which is established by provincial environmental quality standard of East Java number SK.Gub. 129/1996. This means there is pollution by dust particle in this location. The analysis with simulation and overlaying maps of distribution pattern of the dust particles, indicate that the distribution of the dust particles was under the influence of the wind speed and the wind direction. Statistical result of the community perception around factory, indicate that there is a clear difference in community perception toward disturbances in the pleasant according to distance of the respondent's location from the pollution source. Respondent at 200m - 250m from the source pollution felt disturbances in the pleasant. The respondents perception towards disturbance that the health did not indicate any clear difference. This is because they do not know the clear cause of healthy disturbance. Based on data obtained from Dinoyo community health centre, it indicate that the percentage of the patients suffering from respiratory system is higher than Mojolangu community health centre which does not have ceramics industry. This indicated that there is disturbances in healthy conditions in the research location.

Key word : Ceramics Air Pollution, Distribution of Ceramics Air Pollution, Impact of Ceramics Air Pollution

1). Fakultas Teknik Universitas Katolik Widya Karya, Malang

2). Fakultas Teknik Universitas Gadjah Mada, Yogyakarta

3). Fakultas Biologi Universitas Gadjah Mada, Yogyakarta