

ABSTRAK

Nama : Yosep Saepuloh
NIM : 41620110018
Program Studi : Teknik Industri
Judul Laporan Skripsi : Analisis Tingkat Risiko Bahaya K3 Pada
Proses Pengolahan Air Limbah Apartemen
Menggunakan Metode *Hazard and Operability
Study* (HAZOPS)
Pembimbing : Ir. Indra Almahdy, M. Sc

Apartemen di Indonesia, khususnya di Jakarta telah mengali pertumbuhan signifikan dalam beberapa tahun terakhir. Aktivitas di apartemen menghasilkan berbagai jenis limbah, baik limbah organik maupun anorganik. Salah satu kegiatan yang dilakukan dalam pengelolaan apartemen adalah pengolahan air limbah. Walaupun perusahaan telah menerapkan beberapa standar atau prosedur keselamatan kerja, dalam pelaksanaannya masih terdapat beberapa potensi bahaya yang dapat menimbulkan kasus kecelakaan kerja. Apabila potensi bahaya yang timbul dapat diidentifikasi dan dikendalikan, maka angka kemunculan kecelakaan pun dapat menurun. Identifikasi dan pengendalian potensi bahaya dapat dilakukan dengan menggunakan metode HAZOP. Hasil observasi menemukan 43 potensi bahaya (*hazard*) dan kemudian digolongkan menjadi 12 sumber *hazard*. Berdasarkan penilaian *level* risiko, terdapat 3 sumber *hazard* yang tergolong "Ekstrem", 2 sumber *hazard* yang tergolong "Risiko Tinggi", 3 sumber *hazard* yang tergolong "Risiko Sedang", dan 4 sumber *hazard* yang tergolong "Risiko Rendah". Penelitian ini menghasilkan rekomendasi perbaikan berupa pembuatan *Standard Operating Procedure* (SOP), jadwal pelatihan penggunaan Alat Pelindung Diri (APD), jadwal pelaksanaan *safety talk*, *worksheet* penggunaan APD, lembar kontrol penggunaan APD, *checklist handrail*, dan *checklist* penutup bak.

Kata Kunci: Apartemen, HAZOP, Tingkat Risiko, Penilaian Risiko

ABSTRACT

Name : Yosep Saepuloh
NIM : 41620110018
Study Program : *Industrial Engineering*
Title Thesis Report : *Analysis of the Risk Level of K3 Hazards in
Apartment Wastewater Management Using the
Hazard and Operability Study (HAZOPS) Method*
Counsellor : Ir. Indra Almahdy, M. Sc

Apartments in Indonesia, especially in Jakarta, have experienced significant growth in recent years. Activities in apartments produce various types of waste, both organic and inorganic waste. One of the activities carried out in apartment management is wastewater treatment. Although the company has implemented several work safety standards or procedures, in its implementation there are still several potential hazards that can cause cases of work accidents. If the potential hazards that arise can be identified and controlled, the number of accidents can decrease. Identification and control of potential hazards can be done using the HAZOP method. The observation results found 43 potential hazards and then classified into 12 hazard sources. Based on the risk level assessment, there are 3 hazard sources classified as "Extreme", 2 hazard sources classified as "High Risk", 3 hazard sources classified as "Medium Risk", and 4 hazard sources classified as "Low Risk". This research resulted in recommendations for improvement in the form of making Standard Operating Procedure (SOP), training schedule for the use of Personal Protective Equipment (PPE), safety talk schedule, PPE use worksheet, PPE use control sheet, handrail checklist, and tub cover checklist.

Keywords: *Apartment, HAZOP, Risk Level, Risk Assessment*