

ABSTRAK

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Judul :

Tinjauan Resiko Pipa Penyalur Gas Alam Di Kawasan Industri Mitra Cikarang

Penelitian ini memfokuskan pada penilaian resiko pada pipa gas alam dengan teknik *Risk Based Assessment*. Beberapa survey dilakukan pada pipa untuk mengetahui keadaan aktual pipa diantaranya pengujian resistivitas tanah, pengukuran pH, pengujian sistem proteksi katodik, pengukuran ketebalan pipa dan *coating* dan pengumpulan data pipa. Pipa diidentifikasi untuk mengetahui potensial bahaya. Data digunakan untuk analisis *probability* dan *consequence* dari resiko. Dari hasil penelitian didapatkan rating dari *probability* dan *consequence*. Kedua nilai tersebut diplot pada matriks resiko. Pipa gas dikategorikan *medium risk*. Nilai resiko tersebut dikarenakan tingginya nilai *consequence* yang disebabkan oleh korosi internal dari pipa. Tingkatan resiko tersebut berlaku untuk area yang masuk ke dalam radius *potential impact area*. Nilai *potensial impact area* yaitu 35,6 meter dari pipa. Beberapa inspeksi harus dilakukan untuk mengurangi nilai dari resiko tersebut.

Kata kunci: pipa gas, *risk based assessment*, analisis *consequence*, analisis *probability*, korosi, *potential impact area*

ABSTRACT

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Title :

Risk Assessment Of Pipeline Transporting Gases At Mitra Cikarang Industrial Area

The research focused on assessing risk of gas pipeline using Risk Based Assessment technique. Several surveys were done to pipeline to understand actual condition of pipeline like soil resistivity, cathodic protection system, wall and coating thickness survey. Pipe is identified to understand potential hazard. Data are used to analysis risk probability and consequence. The research obtained showed probability and consequence factor. Both of factor are plotted to risk matrix. Gas pipeline categorized to medium risk. Rating of risk is caused by consequence factor from internal corrosion of pipeline. Risk level is obtained for radius of potential impact area. Value of potensial impact area is 35,6 meter from pipeline. Some inspection must be done to reduce level of risk.

Keywords: gas pipeline, risk based assessment, consequence analysis, probability analysis , corrosion, potential impact area