

Analisis Implementasi Process Safety Management (PSM) di Pabrik Petrokimia Unit Produksi Plant 2B PT XYZ Tahun 2022 = Analysis of Process Safety Management (PSM) Implementation at Petrochemical Plant Production Unit 2B PT XYZ in 2022

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Abstrak

Secara umum industri petrokimia merupakan industri dengan tingkat potensi bahaya kecelakaan proses sangat berbahaya bagi para pekerja, masyarakat dan lingkungan sekitar. PT. XYZ sebagai perusahaan produsen Pupuk Urea (NH)₄CO merupakan salah satu pabrik petrokimia di Indonesia dimana dalam menjalankan proses bisnis PT XYZ tidak terlepas dari berbagai ancaman risiko bahaya proses yang tinggi baik dari hulu (proses pengolahan bahan baku gas alam menjadi bahan baku setengah jadi) hingga hilir (proses produksi Pupuk). Maka dari itu dibutuhkan suatu sistem manajemen khusus untuk mengidentifikasi, mitigasi, mengendalikan hingga merepson bahaya dari semua aktifitas maupun proses produksi di tempat kerja. Process Safety Management (PSM) merupakan suatu sistem manajemen keselamatan berbasis proses proaktif dalam mengidentifikasi, mitigasi, mengendalikan serta merespon bahaya dari semua aktifitas ataupun proses produksi di tempat kerja yang banyak digunakan industry petrokimia yang diimplementasikan PT XYZ di salah satu pabriknya yaitu pabrik 2B. Tujuan dari penelitian ini untuk menganalisis tingkat maturitas penerapan PSM pada pabrik 2B PT XYZ yang terdiri dari 14 elemen yaitu Process Safety Information (PSI), Process Hazard Analysis (PHA), Operating Procedure (OP), Employee Participation (EP), Training (TRA), Contractor (CTR), Pre Startup Safety Review (PSSR), Mechanical Integrity (MI), Permit To Work (PTW), Management Of Change (MOC), Incident Investigation (II), Emergency Response and Planning (ERP), Compliance Audit (CA), dan Trade Secret (TS) dimana tingkat maturitas penerapan PSM penting bagi organisasi agar dapat mengetahui kelemahan dan kelebihan dari setiap elemen yang telah mereka terapkan agar dapat mengidentifikasi dan menetapkan tindakan yang dapat dilakukan untuk meningkatkan penerapan elemen PSM sehingga dapat menurunkan potensi kecelakaan proses. Dalam melakukan penilaian tingkat maturitas PSM penelitian menggunakan metode mix methode analisis deskriptif semi kualitatif dengan melakukan pendekatan sumber informasi kunci yang diperoleh melalui kuesioner, wawancara, observasi lapangan dan tinjauan dokumen perusahaan dengan jumlah sample 93 orang. Hasil penelitian didapatkan penilaian terhadap 14 elemen PSM di pabrik 2B PT XYZ berada pada committed to excellence dimana dari 14 elemen tersebut hanya terdapat 4 elemen berada pada level compliant.

.....Commonly, petrochemical industry is the type of industry with a high level of potential process accident hazards that can affect workers, the community and the surrounding environment. PT. XYZ as a producer of Urea Fertilizer (NH)₄CO is one of the petrochemical industry in Indonesia and their business processes cannot be separated from upstream process hazards (processing natural gas raw materials into semi-finished raw materials) to downstream process hazards (fertilizer production process). Therefore, a special management system is needed to identify, mitigate, control and respond to hazards from all products and processes activity in the workplace. Process Safety Management (PSM) is a proactive process-based safety management system in identifying, mitigating, controlling and responding to hazards from all activities or

production processes in the workplace that are widely used by the petrochemical industry which is implemented by PT XYZ in one of its factories, it's 2B plants. The purpose of this study is to analyze the maturity level of PSM implementation at PT XYZ's 2B plants which consists of 14 elements, namely Process Safety Information (PSI), Process Hazard Analysis (PHA), Operating Procedure (OP), Employee Participation (EP), Training (TRA).), Contractor (CTR), Pre Startup Safety Review (PSSR), Mechanical Integrity (MI), Permit To Work (PTW), Management Of Change (MOC), Incident Investigation (II), Emergency Response and Planning (ERP), Compliance Audit (CA), and Trade Secret (TS) where the maturity level of PSM implementation is to be able to identify the advantages and disadvantages of each element implemented in order to identify and determine actions that can be taken to improve the implementation of PSM elements so as to reduce the potential for the accident process. In conducting research to assess PSM implementation maturity level, the research uses a mixed method of semi-qualitative descriptive analysis by approaching the sources of information obtained through questionnaires, interviews, and observations field and research company documents with a sample of 93 people. The results of the assessment research on 14 PSM elements at PT XYZ's 2B factory are committed to excellence where from these 14 elements there are only 4 elements at the compliant level.