

Klasifikasi hazardous area dan analisis pemilihan equipment sesuai standar ATEX dan IECEx di powder plant Frisian Flag Indonesia tahun 2014 = Hazardous area classification and analysis of equipment comply with atex and iecex standards in powder plant frisian flag indonesia year 2014/ Resty Wulandari, author

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Abstrak

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Proses produksi, penanganan, dan penyimpanan berbagai combustible dust di Powder Plant Frisian Flag Indonesia menimbulkan risiko terjadinya dust explosion. Penelitian ini bertujuan untuk mengklasifikasi hazardous area dan menganalisis equipment yang sesuai dengan standar ATEX dan IECEx. Data berupa data primer dan data sekunder. Hasil klasifikasi hazardous area adalah zona 20, 21, dan 22 berdasarkan kemungkinan terbentuknya dust cloud. Hasil analisis equipment berupa ketentuan tentang approval marking, klasifikasi equipment, metode proteksi equipment terhadap ledakan, equipment protection level, dan suhu permukaan maksimum equipment yang diijinkan. Keberadaan combustible dust dan belum dipasangnya equipment yang sesuai untuk penggunaan di explosive atmosphere merupakan suatu kondisi yang sangat berbahaya. Untuk itu perusahaan harus menginstal equipment yang sesuai agar tidak menjadi sumber ignisi sehingga dapat mencegah terjadinya dust explosion.

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**ABSTRACT**

The production process, handling, and storage of combustible dusts in the Powder Plant Frisian Flag Indonesia cause risk of dust explosion. This study aims to classify hazardous area and analyze equipment comply with ATEX and IECEx standards. Data in the form of primary and secondary data. Area classified for explosive dust atmosphere are divided into zones 20, 21, and 22, based up on the possibility of the occurrence of dust cloud. The results of the analysis equipment is provisions about approval marking, equipment classification, method of explosion protection, equipment protection level, and maximum permissible surface temperature. The existence of combustible dust and installation of equipment which is not suitable for use in explosive atmosphere are very dangerous condition. Therefore, the company must install the appropriate equipment so not to become source of ignition which can prevent the occurrence of dust explosion.