

Asesmen Sistem Proteksi Petir Kawasan PT. Pertamina Patra Niaga Aviation Fuel Terminal (AFT)-Minangkabau = Assesment of the Lightning Protection System in the Pertamina Patra Niaga Aviation Fuel Terminal (AFT)-Minangkabau Area

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Abstrak

Laporan Praktik Keinsinyuran ini tentang Asesmen Sistem Proteksi Petir di Kawasan PT. Pertamina Patra Niaga Aviation Fuel Terminal (AFT)-Minangkabau dimaksudkan untuk memastikan kesesuaian Sistem Proteksi Petir (SPP) di kawasan PT. Pertamina Patra Niaga Aviation Fuel Terminal (AFT) Minangkabau dengan standar SNI 03-7014.1 Tahun 2004 serta mengukur kemampuan perlindungan semua bangunan atau struktur dari Sistem Proteksi Petir (SPP) yang terpasang. Hasil asesmen ini menunjukkan hanya 4 unit bangunan yang sangat berbahaya dan memerlukan Sistem Proteksi Petir dengan tingkat perlindungan Level-4, yaitu Tangki-timbun, bangunan Filling Shed, bangunan Refueller Parking Area dan bangunan Gedung Kantor. Rekomendasi yang harus ditindaklanjuti berupa penyambungan kembali semua hubungan yang terputus antara batang elektroda pentanahan dengan down-conductor, memasang kembali finial yang terlepas serta memperbaiki semua nilai tahanan pentanahan menjadi di bawah 5 ohm atau sesuai standar, kemudian melakukan pembersihan semua terminasi atau hubungan antara batang elektroda dengan down-conductor serta lakukan pemeriksaan/pengukuran terhadap semua tahanan pentanahan secara berkala minimal 3 bulan sekali, terutama saat kemarau panjang. Kemudian aspek Etika Insinyur, Profesionalisme, Keselamatan, Kesehatan, Keamanan Kerja dan Lingkungan juga harus dilakukan guna memastikan kesesuaian proyek sesuai dengan peraturan dan standar yang berlaku.

.....The Practical Report on the Assessment of the Lightning Protection System in the Pertamina Patra Niaga Aviation Fuel Terminal (AFT)-Minangkabau area aims to ensure the compliance of the Lightning Protection System (LPS) in the Pertamina Patra Niaga Aviation Fuel Terminal (AFT) Minangkabau area with the SNI 03-7014.1:2004 standard and to evaluate the protection capability of the installed LPS for all buildings or structures. The assessment results indicate that only four units of buildings are highly hazardous and require a Level-4 protection Lightning Protection System. These include the storage tanks, the Filling Shed building, the Refueller Parking Area building, and the Office Building. The recommended actions to be followed up include reconnecting all disconnected links between the grounding electrode rods and the down-conductor, reattaching any detached finials, and improving all grounding resistance values to below 5 ohms or as per the standard. Additionally, it is necessary to clean all terminations or connections between grounding rods and down-conductors and conduct regular inspections/measurements of all grounding resistance at least every three months, especially during prolonged dry seasons. Aspects of Engineer Ethics, Professionalism, Safety, Health, Workplace Security, and Environmental Protection must also be implemented to ensure the project aligns with applicable regulations and standards.