

**LIGHTNING PROTECTION OF COMBUSTIBLE (GASOLINE AND
ETHANOL) SERVICE STATIONS
FIELD EXPERIENCE AND LABORATORY TESTS**

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ABSTRACT

A comparison between IEC-79 - Electrical Apparatus for Explosive Gas Atmospheres and NEC (National Electrical Code) of the NFPA (National Fire Protection Association) 1996 edition, of USA, relative to the risks of fire or explosion, is done. Then some problems in two Brazilian service station are discussed, and finally some results of laboratory tests are presented in order to investigate the possibility of explosion in case of corona or sparks in presence of vapours. To represent these vapours a moisture of air with hydrogen and air with propane was used.