## Effects of Lightning in Oil Plants Construction Sites – Step and Touch Voltage Simulation and Tests in Work Footwear

Hélio E. Sueta¹, Miltom Shigihara¹, Luis E. Caires¹, Geraldo F. Burani¹

<sup>1</sup>Institute of Electrotechnics and Energy, University of São Paulo IEE/USP São Paulo, Brazil e-mail: sueta@iee.usp.br Wallace J. D. Nascimento<sup>2</sup>

<sup>2</sup>Petróleo Brasileiro S.A.

PETROBRÁS

Duque de Caxias, Brazil

e-mail: wdamasceno@petrobras.com.br

This paper presents a study on the effects caused by indirect lightning on oil refinery construction site workers. We made some tests on work footwear, commonly used by workers in these refineries, and some simulations for a specific site for the evaluation of step and touch voltages.