

Blondin, J.P., Nguyen, D.H., Sbeghen, J., Goulet, D., Cardinal, C., Maruvada, P.S., Plante, M., Bailey, W.H. 1994

Perception chez les humains des champs électriques et des courants ioniques produits par les lignes à haute tension en courant continu. (Human perception of electric fields and ion currents associated with high-voltage DC transmission lines)

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Abstract: This research was done in 1994 by the Université de Montréal for Hydro-Québec's Environment branch. It consisted in studying the thresholds of human perception of ion currents and the electric field produced by a high-voltage direct-current line. Sixty volunteers participated in the study. Each was subjected, in a laboratory, to an electric field ranging from 0 to 50 kV/m and an ion current ranging from 0 to 150 nA/m². The study results were used to develop environmental design criteria for direct-current lines. The technical characteristics of the exposure chamber were published in an article in the Institute of Electrical and Electronic Engineers (IEEE) journal: D.H. NGUYEN, and P.S. MARUVADA, "An Exposure Chamber for Studies on Human Perception of DC Electric Fields and Ions", IEEE, Vol. PWRD-058, No. 8, 1994.