# THE MEASUREMENT OF BODY CURRENTS INDUCED BY RADIO FREQUENCY FIELDS

S.G. Allen, R.P. Blackwell, C. Unsworth and J.A. Dennis
National Radiological Protection Board, Northern Centre
Hospital Lane, Cookridge, Leeds, LS166RW, UK

## ABSTRACT

At frequencies below about 100 MHz proposals for the limitation of exposures to electromagnetic fields proposed by the National Radiological Protection Board are based on a mixture of considerations limiting both electric current densities in the body, currents in the arms and legs and specific absorption rates. One effect of these proposals is to require the limitation of currents in the legs to about 100 mA. To give practical effect to the proposed exposure limitations it was necessary to measure these currents under realistic exposure conditions using various measurement techniques. The results of the measurements carried out in the vicinity of HF radio transmitters and industrial RF heat sealing equipment are discussed.