

# **SOUTH AFRICA**

## **NATIONAL REPORT 2007**

### **General research activities related to EMF health:**

#### *On-going studies:*

A pilot study is currently being conducted as a collaborative effort between the Tshwane University of Technology, University of Pretoria Medical School, Tygerberg Hospital and the Finnish Radiation and Nuclear Safety Authority (STUK). The aim of the study is to identify parameters whereby the effects of low level microwave radiation (900 MHz) on human sperm can be detected. The association between the expression of heat shock proteins, especially HSP27 and HSP70, and variations in sperm motility is currently being investigated. A paper on this topic was delivered at the BEMS 2005 meeting in Dublin, Ireland.

The first South African Mobile Phone Symposium will be held in Johannesburg from 7 to 9 October 2007 under the auspices of the South African Bureau of Standards and STUK from Finland. The theme will be mobile telephony and its relation to health, compliance with standards, and precaution. Further details can be found on the website of the International EMF Project.

### **New policies and legislation:**

The process implemented in 2003 under the Hazardous Substances Act to control the non-medical application of electromagnetic fields was suspended on 18 November 2003 by the Director General of the South African Department of Health, following objections by the industry to certain areas of ambiguity in the current regulations. The Director General therefore requested that a thorough analysis of the available internationally recognised guidelines for human exposure to electromagnetic fields be conducted. A systematic investigation of the regulatory control of electromagnetic fields internationally has since then been conducted on an on-going basis. The model legislation adopted at the 2006 IAC meeting will be used as the basis for compiling new EMF regulations. These regulations will be developed in terms of new enabling legislation that will be promulgated to provide for mandatory control of ionizing and non-ionizing radiation. The sections of the Hazardous Substances Act, which deal with the control of devices producing ionizing and non-ionizing radiation, will in due course be repealed. The telecommunications industry has been involved in continuing discussions with the Department of Health about the proposed new regulations.

A working group of the South African Bureau of Standards Technical Committee 73 was established to consider the development and adoption of standards relating to the measurement and calculation of human exposure to time-varying electromagnetic fields. The standards developed by IEC TC106 in this regard can be adopted and overwritten as South African national standards because the South African Bureau of Standards is a member of the IEC.

### **Areas of public concern and national responses:**

Exposure to base stations remains a definite concern of the general public. Queries from members of the public and community groups are handled on an individual basis and people are, as a rule, referred to the website of the International EMF Project, because this is also the Department of Health's primary source of information and guidance with regard to the health effects of EMF.

Several large metropolitan areas in South Africa (where the highest concentrations of cellular masts typically exist) have based the health aspect of their telecommunications infrastructure policies on the ICNIRP guidelines, following explicit recommendations by the Department of Health in this regard. Unfortunately, the current lack of national regulations to effectively control non-medical EMF is not helpful at all for local authorities that have to deal with queries about their respective policies. However, the 1999 EUROBROCHURE on electromagnetic fields does offer some current assistance in this regard, as would the proposed new EUROBROCHURE on wireless communications.

### **New public information activities:**

It is the intention to host a seminar on the health aspects associated with exposure to telecommunications installations in August 2007 as a joint venture between the industry and the Department of Health. The seminar will be open to participation by the public and any other interested parties.

As mentioned above, the South African Bureau of Standards, in association with STUK from Finland, will host the first South African Mobile Phone Symposium in October 2007.