

Bahrain
Report on EMF Activities
19TH International Advisory Committee Meeting on EMF
4-5 June 2014 Geneva

Introduction

Telecommunications services are a key element in the realisation of the Kingdom's social and economic development as articulated in the 2030 Vision. In Bahrain the telecommunications industry is a major component of the national economy and the continuous investment in wireless telecommunications aim to satisfy the ever increasing demand from consumers and businesses for broadband internet connectivity as well as voice communications, hence the rapid increase in usage and development of radio technologies, more masts have been deployed. Antennas are now a common sight everywhere, even close to residential and commercial areas where the users of the services are located in order to deliver modern broadband radio based telecommunications services with sufficient capacity to meet Public demand ,and this has resulted in concerns regarding radio frequency signals that they emit. As a consequence; a degree of public concern over the possible health risks posed by electromagnetic fields (EMF).

General Research Activities

The Directorate of Assessment and Environmental Control Administration at Supreme Council of the Environment has received sixteen complaints during 2013 from the public about their concerns and fears of the presence of mobile phones base stations close to their houses. The inspectors carried out the visits, measurements using the Insite Free equipment were made at different residential locations e.g Sanad, Busiteen, IsaTown, Jerdab , Juffair, Hamala & Karbabad in response to specific public concerns arising from the installation of new base stations or the presence of more than one base station for more than one operator in the same area..

The measurements Showed that the levels of electromagnetic fields are low and less than a hundred times for exposure limits set by the International Commission for the Prevention of Non-Ionizing Radiation (ICNIRP) and adopted in the Ministerial Decree No. 4 of 2009 on the organization and control of non- ionizing radiation from electromagnetic fields in Bahrain. All measurements are small compared to the ICNIRP guidelines and at, or very close the lowest signal level measureable by the test equipment. The highest total exposure level measured during the inspection visits was 6.16% of the ICNIRP level; this was recorded at Isa Town. It is higher than at other locations but this is to be expected given that the measurement was taken, in open air, at a distance of about 200m from the base station. While the lowest total exposure level measured during the inspection level was 0.01% . Of the ICNIRP level, this was recorded at Sanad.

Conclusion

All organizations which transmit radio frequency signals are required to comply with Order No. 4 of 2009 which has been issued from the Supreme Council of the Environment, and Order No. 5 issued by the Council of Ministers on the deployment of masts to ensure efficient and effective wireless telecommunications networks development but in the same time taking into consideration the environment and health concerns of the general public.

The measurement campaigns is an ongoing procedure to map RF signal levels throughout the Kingdom of Bahrain, to ensure the compliance with the international guidelines and to protect the public health from any possible health risk .

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