



## environment, forestry & fisheries

Department:  
Environment, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

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### NATIONAL ASSEMBLY

(For written reply)

QUESTION NO. 79 {NW82E}

INTERNAL QUESTION PAPER NO. 1 of 2021

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#### **Mr N Singh (IFP) to ask the Minister of Forestry, Fisheries and the Environment :**

In light of section 24 of the Constitution of the Republic, 1996, which guarantees the right to every person to an environment that is not harmful to their health or wellbeing and therefore do not subject any person to pollution or ecological degradation, what are the full relevant details of the steps that her department has taken in the Republic to ensure that the roll-out of 5G technology is not harmful to humans and the environment?

#### **79. THE MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT REPLIES:**

In terms of the Bill of Rights, included in the Constitution of the Republic of South Africa of 1996, everyone has a right to an environment that is protected and that is also not harmful to health or wellbeing. The Department of Environment, Forestry and Fisheries (the Department) has developed legal instruments to ensure that this right is given effect to, which include, *inter alia*, the Environmental Impact Assessment Regulations, 2014 (as amended) (the EIA Regulations) promulgated in terms of the National Environmental Management Act, 1988 (Act No. 107 of 1998) (NEMA).

Although the EIA Regulations do not address health aspects directly, other impacts associated with masts and/or towers on the receiving environment are considered, in line with the Department's

constitutional mandate. However, in developing the 3 Listing Notices of the EIA Regulations, the Department was guided by the informed views of the Department of Health (DOH), in relation to the effects of electromagnetic fields. The directorate responsible for Radiation Control in the Department of Health is, in turn, guided by the International Commission on Non-Ionising Radiation Control's (ICNIRP) guidelines insofar as it relates to the regulation of electronic products producing non-ionising electromagnetic fields (EMF), especially from the perspective of human health.

Following an engagement with the DOH, confirmation was obtained that there is no confirmed scientific evidence that points to any health hazard associated with the very low levels of exposure that the general public would typically experience in the vicinity of a cellular base station. DOH further confirmed that it is satisfied that the health of the general public is not being compromised by their exposure to the microwave emissions of cellular base stations (which includes 5G infrastructure). The DOH deems the ICNIRP guidelines to be appropriate to manage potential radiation risks and cautioned that local and other authorities, in considering the environmental impact of any particular base station, do not need to, and should not attempt, from a public health point of view, set any restrictions with respect to parameters such as the height of the mast, distance to the mast, and duration of exposure.

Since 2 August 2010, the development of masts or towers used for telecommunication broadcasting or radio transmission purposes has been identified as an activity requiring environmental authorisation. In the case where masts or towers exceed 15 metres in height, such masts or towers are placed on a site not previously used for this purpose and are to be developed within certain identified geographical areas. Should the mast or tower not meet these criteria or fall outside any one or more identified geographical areas, environmental authorisation is not required, as the potential impact of such developments are not deemed to be significant. Environmental authorisation is also not required if they are attached to existing buildings, masts or rooftops.

The EIA Regulations, 2014 (as amended), through the 3 Listing Notices, identify activities that may result in substantial negative impacts on the environment, and it requires that an environmental authorisation must be obtained prior to commencement with any such identified activities. The EIA Regulations further requires that an environmental impact assessment process is followed in respect of these identified activities and that applications are submitted to the Competent Authority for consideration and decision prior to the commencing with any of such identified activities that may result in substantial negative impacts on the environment. This means that an environmental impact

assessment process must be followed in respect of these identified activities, and applications must be submitted to the Competent Authority for consideration.

In line with Section 24(2)(a) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the Department has considered all the potential significant impacts associated with cellular masts on the receiving environment. Currently the development of masts or towers used for telecommunication broadcasting or radio transmission purposes has been identified as an activity requiring environmental authorisation, but only where such masts or towers:

- a. exceed 15 metres in height;
- b. are placed on a site not previously used for this purpose;
- c. are to be developed within certain specified geographical areas; and
- d. will not be attached to existing buildings, masts or rooftops.

Should the mast or tower not meet the above criteria, environmental authorisation is not required, as the potential impact of such developments are not deemed to be significant.

The Department, in developing the current enacted Listing Notices (Listing Notices 1, 2 and 3 of the EIA Regulations) was guided by the views of the Department of Health (amongst others) regarding the effects of electromagnetic fields.

The Department of Health, through its Directorate: Radiation Control, considers the World Health Organisation and the International Commission on Non-Ionising Radiation Control (ICNIRP) guidelines to be appropriate to manage potential radiation risks. The Department of Health has indicated that measurement surveys conducted in South Africa and elsewhere have shown that the actual levels of public exposure, as a result of base station emissions, are only a fraction of that of the ICNIRP guidelines.

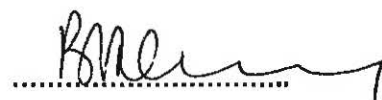
In a letter, dated 13 June 2020 (**attached as Annexure A**), on the health effects of cellular base stations and handsets, the Department of Health (DOH) confirms that presently there is no confirmed scientific evidence that points to any health hazard associated with the very low levels of exposure that the general public would typically experience in the vicinity of a cellular base station, DOH further confirmed it is satisfied that the health of the general public is not being compromised by their exposure to the microwave emissions of cellular base stations. It also clarified that local and other authorities, in considering the environmental impact of any particular base station, do not need to, and should not

attempt, from a public health point of view, set any restrictions with respect to parameters such as the height of the mast, distance to the mast, and duration of exposure.

Therefore, it is implicitly assumed that the normal engineering and security measures, which are routinely implemented by cellular network providers at base stations, will effectively prevent reasonable members of the public from gaining close access to the actual antennas situated on any mast structure.

The Department may, should the DOH change its position in this regard, or if indeed requested by the Minister of Forestry, Fisheries and the Environment to do so, reconsider the relevant listing of cellular masts and base stations.

**Regards**



**MS B D CREECY, MP**  
**MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT**

DATE: 22/2/2021



## Department of Health

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### To whom it may concern

#### HEALTH EFFECTS OF CELLULAR BASE STATIONS AND HANDSETS

The Directorate: Radiation Control was the section within the National Department of Health that was responsible, from the viewpoint of human health, for regulating electronic products producing **non-ionising** electromagnetic fields (EMF), i.e. where the frequency of such EMF is less than 300 GHz. The Directorate Radiation Control has since been transferred to the South African Health Products Regulatory Authority (SAHPRA). In carrying out its responsibility, the Directorate has been utilising the World Health Organization's (WHO) International EMF Project ([www.who.int/peh-emf/en/](http://www.who.int/peh-emf/en/)) as its primary source of information and guidance with respect to the health effects of EMF. The International EMF Project was established by the WHO in 1996 to (i) assess the scientific evidence for possible adverse health effects of non-ionising electromagnetic fields on an on-going basis, (ii) initiate and coordinate new research in this regard, and (iii) compile health risk assessments for different parts of the electromagnetic spectrum. The Department of Health has been a member of the International Advisory Committee of the International EMF Project since 1998.

In June 2005 the International EMF Project hosted a workshop that was specifically aimed at considering the possible health consequences of the emissions from cellular base stations and wireless networks. The findings of this workshop were summarised in a 2-page Fact Sheet (<http://www.who.int/peh-emf/publications/facts/fs304/en/>). The following extract from this Fact Sheet is still considered by the WHO as a summary of the findings to date, i.e. ***“Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects.”***

Another WHO Fact Sheet was published in June 2011 and reviewed in October 2014, i.e. *Electromagnetic fields and public health: mobile phones*. This Fact Sheet can be found at

<http://www.who.int/mediacentre/factsheets/fs193/en/>) and the conclusion is stated as follows:

***“A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use.”***

The WHO recommends utilising internationally recognised exposure guidelines such as those published in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and reconfirmed in 2009 for the frequency range 100 kHz – 300 GHz (i.e. including all the frequencies employed by the cellular industry). The Department of Health likewise recommends the use of these ICNIRP guidelines to protect people against the known adverse health effects of EMF.

The numerous measurement surveys, which have been conducted around the world and in South Africa, have shown that the actual levels of public exposure as a result of base station emissions invariably are only a fraction of the ICNIRP guidelines, even in instances where members of the public have been really concerned about their exposure to these emissions. At present there is **no** confirmed scientific evidence that points to any health hazard associated with the very low levels of exposure that the general public would typically experience in the vicinity of a cellular base station. The Department is therefore satisfied that the health of the general public is not being compromised by their exposure to the microwave emissions of cellular base stations. This also means that local and other authorities, in considering the environmental impact of any particular base station, do not need to and should not attempt, from a public health point of view, to set any restrictions with respect to parameters such as distance to the mast, duration of exposure, height of the mast, etc.

The Department of Health is not able to make any pronouncements about the specific levels of EMF that a member of the public would experience at any particular base station site when it is in operation. However, generally-speaking unless a person would climb to the top of a mast (or other structure supporting an antenna) and position him/herself not more than a few meters away right in front of the active antenna, such a person would have no real possibility of being exposed to even anywhere near the afore-mentioned ICNIRP guideline limits. Since these base stations are typically cordoned off by means of barbed wire fencing and locked gates/doors in order to protect the sensitive and expensive technology, getting to a mast and actually climbing it despite the afore-mentioned security measures would certainly not be considered responsible behaviour. Even then the only real threat to the health of the person would be falling at any height from the structure in question. Based on the results of numerous global and local surveys, the experience has been that the exposure to base station EMF at ground level is typically in the range of between 0.001 – 1.0 % of the afore-mentioned ICNIRP guideline limits. Against this background of available data, there

would be no scientific grounds to support any allegation that adverse health effects might be suffered by a responsible member of the public due to the EMF emitted by a base station.

Although the Department of Health currently neither prescribes nor enforces any compulsory exposure limits for electromagnetic fields, the Department does advise all concerned (whether they be a government department, the industry or the public) that voluntary compliance with the afore-mentioned ICNIRP exposure guidelines is the recommended and science-based way to deal with any situation involving human exposure to the non-ionising electromagnetic fields emitted by cellular base stations and handsets.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'LL du Toit', written in a cursive style.

**LL du Toit**  
DEPUTY DIRECTOR: RADIATION CONTROL