

**The Legislative Council Meeting on 22 January 2014**  
**Progress Report on the Motion on “Regulating Mobile Radio Base**  
**Stations to Protect Public Health”**

At the Legislative Council meeting on 22 January 2014, the motion on “Regulating mobile radio base stations to protect public health” moved by Hon Wong Kwok-hing and amended by Hon Charles Peter Mok was passed.

2. The wording of the motion passed is at **Annex A**. This report informs Members of the follow-up actions taken by the Administration in respect of the motion.

**Encourage owners’ corporations or management companies to inform residents**

3. The Office of the Communications Authority (“OFCA”) issued a letter to around 6 500 owners’ corporations or management companies of buildings in Hong Kong on 17 March 2014 to introduce the radiation safety requirements and related regulatory measures of radio base stations for mobile communications (“base stations”). The letter also encourages building management personnel to strengthen the communications with residents on matters relating to the installation of base stations with a view to allaying residents’ concerns over radiation of base stations. The said letter (in Chinese only) is at **Annex B**.

4. To raise public awareness of base station radiation safety, OFCA has also taken the following further public education initiatives –

- (a) issued consumer advice (at **Annex C**) on information about base station radiation safety on 20 March 2014<sup>1</sup>; and
- (b) disseminate the leaflet on base station radiation safety<sup>2</sup> through more diverse channels including the Public Enquiry Service Centre of District Offices, the Consumer Council Resource Centre and the Information Services Department.

5. Over the past three years, OFCA attended 15 seminars on building management organised by District Offices to explain to the building management personnel the Registration Scheme for Buildings with Optical Fibre Access Networks and the connection and channel use of in-building coaxial cable distribution system. OFCA will continue to participate in seminars on building management actively, and include information about base station radiation safety and installation of base stations in buildings in these seminars so that residents and building management personnel can better understand the issue. It will also encourage building management personnel to strengthen the communications with residents on matters relating to the installation of base stations in buildings.

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<sup>1</sup> The consumer advice can be downloaded at OFCA's website [http://www.ofca.gov.hk/en/consumer\\_focus/education\\_corner/guide/advice\\_mps/safety/index.html](http://www.ofca.gov.hk/en/consumer_focus/education_corner/guide/advice_mps/safety/index.html).

<sup>2</sup> The leaflet can be obtained at OFCA or downloaded at OFCA's website <http://www.ofca.gov.hk/filemanager/ofca/Publicity/en/upload/10/2e.pdf>.

## **Code of practice and related requirements**

6. According to General Condition 14 of the carrier licences of the mobile network operators (“operators”), operators shall comply with the radiation safety requirements prescribed by Communications Authority (“CA”), including the Code of Practice for the Protection of Workers and Members of Public Against Non-Ionising Radiation Hazards from Radio Transmitting Equipment (“Code of Practice”). The Code of Practice sets out in detail the limits on radiation generated by radio transmitting equipment and gives guidance for the protection of general public from exposure to radiation. The operators must comply with the Code of Practice in order to ensure that their base stations fully comply with the radiation safety requirements. Where an operator fails to comply with any licence condition, CA may, pursuant to section 36C of the Telecommunications Ordinance, impose financial penalty on it. OFCA will carry out sample checks and take field measurement of radiation level at base stations in the territory from time to time so as to protect public health.

7. On building safety, operators need to appoint an Authorized Person (“AP”) under the Buildings Ordinance (“BO”) to declare that the proposed base station is in compliance with the requirements of the BO when they submit the application for installation of base station. If the installation of base station involves building works, the applicant should appoint an AP in accordance with the BO to submit building plans to Buildings Department (“BD”) and to carry out the works only after obtaining the approval of the building plans and BD’s written consent for commencement of the works, unless the works are exempted works under BO or the works fall within the scope of designated minor works items that

can be implemented through the simplified requirements of the Minor Works Control System. BD has also issued practice notes and technical guidelines to registered building professionals and registered contractors to set out the relevant standards and requirements.

**Review of radiofrequency radiation safety standards by making reference to overseas experience**

8. The timely review of Hong Kong's radiofrequency radiation safety standards by making reference to overseas experience suggested in the motion is already part of the Administration's regular work. In fact, international authorities namely the World Health Organization, the Institute of Electrical and Electronics Engineers and the International Commission on Non-Ionizing Radiation Protection have continued to monitor and summarise the research results of numerous international academic and research institutes on the human health effects of electromagnetic fields. The Administration will keep in view the latest research results on the human health effects of electromagnetic fields as well as the reports published by relevant authorities so as to keep abreast of the latest information and conduct risk assessment on public health. OFCA and the Department of Health ("DH") will also maintain close liaison and consider whether it is necessary to revise the existing radiofrequency radiation safety standard after taking into account the most up-to-date scientific information.

**Inter-departmental statistics on cases of base stations affecting residents**

9. OFCA and other relevant departments including the Lands Department, BD and DH have set up a coordination group to exchange regularly information about complaint cases related to radiation of base stations, related developments and solutions, etc.

**Communications and Technology Branch  
Commerce and Economic Development Bureau  
March 2014**

**Legislative Council meeting of 22 January 2014**

**Motion as amended by Hon Charles Peter MOK on  
“Regulating mobile radio base stations to protect public health”**

That, with the rising penetration rate of mobile communications services in Hong Kong, more and more people use mobile phone and data services, especially high speed mobile broadband services; in order to improve the quality of the relevant services, mobile service operators must identify suitable locations, such as rooftops and external walls of buildings, for installing mobile radio base stations (‘mobile base stations’), so as to enhance mobile network coverage and meet users’ demand for mobile data usage and speed; yet, people are concerned that the signals from mobile base stations on rooftops of buildings may affect residents’ health, and mobile base stations may also affect fire safety and building structure; in this connection, this Council urges the Government to:

- (1) encourage owners’ corporations or management companies of buildings to actively inform residents of matters relating to the installation of mobile base stations in buildings;
- (2) formulate a code of practice to require mobile service operators to alleviate the impact of mobile base stations on the public and buildings, and ensure the compliance of mobile base stations with the requirements of the relevant government departments and regulators, and devise a mechanism for handling complaints about mobile base stations;
- (3) having regard to the dense buildings and high population density in Hong Kong, require that the radiation levels of mobile base stations installed by mobile service operators in public areas must be in compliance with the safety standards set out in the Code of Practice for the Protection of Workers and Members of the Public against Non-Ionising Radiation Hazards from Radio Transmitting Equipment issued by the Office of the Communications Authority;
- (4) by making reference to other countries’ relevant research findings and professional opinions, timely conduct a review of Hong Kong’s safety standards of radiofrequency radiation, so as to protect public health; and

- (5) set up an inter-departmental task force to compile records and statistics on cases of mobile base stations affecting residents, and provide solutions to the residents who suffer nuisance.

大廈業主立案法團/大廈管理處:

敬啟者:

### 有關流動通訊無線電基站的輻射安全

近年本港的流動通訊業務急速發展，流動通訊網絡營辦商（「營辦商」）需要在全港各處(包括大廈天台及外牆)增設及改裝無線電基站（「基站」）<sup>1</sup>，以擴展和改善流動通訊網絡的覆蓋範圍及容量，從而滿足公眾的需求。隨著設置在大廈天台及外牆基站數量的增加，基站的輻射安全引發越來越多大廈居民的關注。政府在推動流動通訊發展讓市民大眾得益的同時，亦希望讓市民更了解基站的輻射安全要求及相關的規管措施。


衛生署指出，基站所產生的「射頻電磁場」，屬非電離輻射的一種，與 X 光、核輻射等電離輻射並不相同。簡單而言，非電離輻射的能量較低，不足以改變物質的化學性質，亦不能打破人體內的化學鍵而造成傷害。有關射頻電磁輻射安全資料，可參閱隨函附上的小冊子或瀏覽通訊事務管理局辦公室（「通訊辦」）的網頁<sup>2</sup>。

就基站輻射安全問題，通訊事務管理局（「通訊局」）與衛生署保持緊密溝通。經徵詢衛生署意見後，通訊局現時採用「國際非電離輻射防護委員會」（簡稱「ICNIRP」）所制定的非電離輻射限值，作為其中一項基站批核準則。衛生署表示，世界衛生組織鼓勵各國採用由ICNIRP制定的限值，並認為現時沒有充分科學證據顯示人體暴露於該限值水平以下的非電離輻射，會對健康造成不良影響。

根據電訊牌照條款，營辦商須先獲通訊局的批准，才可以使用基站。而通訊局亦只會批准輻射水平在 ICNIRP 限值水平以下的基站<sup>3</sup>。此外，通訊辦會不定期對全港已獲准使用的基站抽樣，進行實地輻射水平測量，以保障市民健康。若貴大廈住戶對家居附近基站的輻射水平仍有疑慮，可致電通訊辦熱線 2961 6333/ 2961 6648 或電郵至 webmaster@ofca.gov.hk，要求通訊辦派員到場測量輻射水平。

另外，我們必需指出，營辦商在大廈的任何公用部分設置基站前，必須先得到大廈業主立案法團或管理公司（「大廈管理人」）的同意，並與其達成設置基站的商業協議，才可設置基站。鑒於公眾對基站輻射安全日益關注，我們鼓勵大廈管理人就大廈設置基站事宜，與住戶加強溝通，從而減少住戶對基站輻射的憂慮。因此，我們建議大廈管理人與營辦商在簽訂任何協議前，先知會住戶及考慮他們的意願。若得悉營辦商在公用部分以外設置基站，我們亦建議大廈管理人主動通知住戶。

通訊事務總監

(何貴深  代行)

2014 年 3 月 17 日

<sup>1</sup> 基站包括流動電話及流動電視的無線電基站。

<sup>2</sup> [http://www.ofca.gov.hk/tc/consumer\\_focus/mobile\\_telecom/rf\\_radiation\\_safety/index.html](http://www.ofca.gov.hk/tc/consumer_focus/mobile_telecom/rf_radiation_safety/index.html)

<sup>3</sup> 基站除必須符合輻射安全等規定，仍要符合有關土地規劃及使用限制、樓宇結構安全及防止無線電干擾的規定。



**Radiation Safety of Mobile Communications Radio Base Stations and  
Hand-held Mobile Communications Devices**

With the rapid development of mobile communications services and the increase in the number of users, the public has a growing concern about the radiation safety of radio base stations<sup>1</sup> (“RBS”) for mobile communications and hand-held mobile communications devices (“HMCD”). This General Guides to Consumers aims to help the public better understand the radiation safety of mobile communications.

**Radiation Safety of RBS**

RBS are one of the fundamental components of a mobile communications network. It is necessary for mobile network operators (“MNOs”) to install RBS throughout the territory in order to provide uninterrupted communications services to the public.

Regarding the radiation safety of RBS, the Department of Health (“DH”) indicates that unlike ionizing radiation such as X-rays and nuclear radiation, radiofrequency electromagnetic fields generated by RBS are a type of non-ionizing radiation (“NIR”). In simple terms, NIR has lower energy and is insufficient to change the chemical properties of substances. It cannot cause harm by breaking chemical bonds in the human body.

Regarding the safety standards of NIR (such as the radiofrequency electromagnetic fields generated by RBS) received by human body, the International Commission on Non-ionizing Radiation Protection (“ICNIRP”) has set the NIR safety limits based on the findings of scientific literature and related health risk assessments. The World Health Organization (“WHO”) recognises the limits set by ICNIRP and encourages countries worldwide to adopt the limits, and is of the view that there is no sufficient scientific evidence indicating that exposure to NIR levels below the ICNIRP limits will cause adverse health effects.

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<sup>1</sup> RBS include those for mobile phone and mobile TV services.

## **Approval for RBS**

According to conditions of telecommunications licences, MNOs are required to obtain approvals from the Communications Authority (“CA”) before bringing their RBS into operation. Having consulted the DH, the CA has adopted the NIR limits as set by the ICNIRP as the approval criteria for RBS. In vetting the applications, apart from examining the radiation level of individual RBS, the CA will also take into account the total radiation level of all RBS installed at the same location to ensure that the total radiation level complies with the ICNIRP before granting approval for these applications<sup>2</sup>. The CA has also issued the Code of Practice for the Protection of Workers and Members of Public Against Non-Ionizing Radiation Hazards from Radio Transmitting Equipment for the MNOs’ compliance so as to ensure that the radiation levels of RBS meet the NIR limits set by the ICNIRP. Furthermore, the Office of the Communications Authority (“OFCA”) will conduct from time to time sample checks on the radiation levels of approved RBS so as to safeguard public health.

ICNIRP limits or similar requirements are commonly adopted by many of the developed economies and economies with dense population, such as Germany, France, the United States, the United Kingdom, Canada, Australia, New Zealand, Japan, Singapore and Korea, as their radiation safety standards. The CA will consult the DH and obtain its professional advice from time to time in order to keep abreast of the latest development of the radiation safety standards.

## **Hotline for Enquiry on Radiation Level of RBS**

Members of the public may call 2961 6648 if they are concerned about the radiation levels at their homes or in public places. OFCA will deploy its staff to conduct site inspections and measurements of radiation level, and will explain to members of the public the measurement results.

## **Radiation Safety of HMCD**

HMCD include mobile phones, tablets and laptop computers that can be connected to the public mobile communications networks. The radiation level of HMCD is quantified in terms of “Specific Absorption Rate” (S.A.R),

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<sup>2</sup> Apart from complying with the radiation safety requirements, the RBS must meet the relevant requirements concerning land planning and land use restrictions, structural safety, radio interference etc.

which measures the actual amount of radiofrequency energy absorbed by a human body. In consultation with the DH, the CA has adopted the S.A.R. limits recommended by the ICNIRP and the Institute of Electrical and Electronics Engineers as the radiation safety standard for HMCD. At present, all HMCD on the local market must comply with the safety standard adopted by the CA.

In order to help consumers make informed choices and identify those HMCD which are in compliance with the S.A.R. limits, the CA allows manufacturers, suppliers and dealers to affix labels prescribed by the CA as shown below to their type-approved HMCD on a voluntary basis. You may also check the list of type-approved models and their S.A.R. values on OFCA's web site<sup>3</sup>.



So far, there is no scientific evidence indicating that under normal usage, the radiation of HMCD will cause health hazards. Nevertheless, according to the DH, it is advisable for children to avoid using mobile phones frequently. OFCA will continue to monitor closely the research findings of overseas organisations and the WHO.

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<sup>3</sup> <http://app1.ofca.gov.hk/apps/cte/content/listSafetyEq.asp?lang=E>