

Questions On Notice – Senate Committee Hearing – Telecommunications Amendment (Mobile Phone Tower) Bill 2011

Senators asked the following questions on notice:

- How many of the 18,000 installations has ACMA tested to see that they are complying with radiation exposure limits?
- How many complaints would the ACMA have received in the past year that they could act on?

The ACMA's response

The Australian Communications and Media Authority (ACMA) manages the radiofrequency spectrum in accordance with the *Radiocommunications Act 1992*, (the Act). Radiocommunications licences are issued by the ACMA in accordance with Part 3 of the Act. Mobile phone base stations are authorised under either apparatus licences or spectrum licences and are required to comply with all of the conditions that apply to those licences.

Licence conditions are an important mechanism by which the ACMA, as the spectrum regulator, ensures that the spectrum is managed in the public interest and that spectrum users are able to communicate effectively with a minimum of interference. Conditions may be included directly in a licence or determined in a written instrument made by the ACMA. Licences typically include conditions about:

- operating frequency,
- location,
- applicable standards,
- technical performance characteristics,
- electromagnetic emissions (EME),
- operator qualifications,
- conditions relevant to containment of interference, and
- for broadcasting services, technical planning guidelines issued by the ACMA under the *Broadcasting Services Act 1992*.

Licence conditions applied to mobile base stations require that electromagnetic energy (EME) from those base stations do not exceed specified limits at any location that is accessible to members of the general public. For apparatus licences, these conditions are contained in the *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2003* (the LCD). Similar conditions are included in spectrum licences issued by the ACMA.

Licence conditions about EME are based on the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003*. This ACMA standard is based on the *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz* published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

EME measurements of mobile phone base stations conducted by ARPANSA since 2007 show that the public exposure levels are lower than 3% of the exposure limit in the ARPANSA standard. The

evidence available from ARPANSA indicates that the EME exposure levels from mobile phone base stations operated in accordance with ACMA licence conditions do not represent a health risk to the public.

The ACMA conducts audits of radiocommunications installations on a risk informed basis to give effect to the radiocommunications licensing and interference management regulatory arrangements. ACMA audit programs are structured to address specific risks such as:

- actual or anticipated risk of interference,
- operation of unlicensed radiocommunications devices:
- increased risk of incompatible frequency assignments based on unreliable information contained in the register of radiocommunications licences, and
- public safety, including exposure to unsafe levels of non-ionising EME.

As an example of its risk-informed approach to spectrum management, the ACMA recently commenced an audit program in response to evidence which suggests that community based FM broadcast transmitters feature significantly in interference events affecting aeronautical communications. ACMA staff consulted with the community broadcast sector through the Community Broadcasting Association of Australia and the Southern Community Media Association about the audit program before commencing a program of site visits and transmitter inspections.

The audit program will allow the ACMA to better understand the potential for interference to aeronautical radiocommunications services from community broadcast stations. If the audit program identifies issues of concern, the ACMA will work with industry to identify causal factors and develop and implement solutions.

With regard to compliance with EME licence conditions, the ACMA conducted an audit program between 2006 and 2008 that involved the auditing of 474 sets of EME records held by licensees. It is a condition of a licence that licensees hold records that demonstrate compliance with the EME conditions that apply to apparatus and spectrum licences.

The audit program focussed on licences operating transmitters that would represent a potentially greater EMR risk to the general public if EME licence conditions were not complied with. The audit program did not identify any systemic issues with licensees exceeding EME limits at locations accessible by the general public.

The ACMA is aware that in addition to holding these records, mobile phone carriers prepare predictive reports and obtain site compliance certificates, both of which are available online at the Australian Mobile Telecommunications Association Radiofrequency National Site Archive website (<http://www.rfnsa.com.au>).

Details of the number of enquiries and complaints made to the ACMA about the installation of mobile phone infrastructure under Schedule 3 of the Telecommunications Act are provided below.

Of the 97 enquiries and 5 complaints received by the ACMA in the nine months to 31 March 2012, 37 enquiries and 2 complaints related to EME issues. These 37 enquiries and 2 complaints were about the site specific obligation imposed on carriers under the industry code Deployment of Mobile Phone Network Infrastructure. The precautionary approach to site selection requirements of the code (at section 5.1) requires carriers to have regard to criteria, one of which includes minimization of EMR exposure to the public.

TELECOMMUNICATIONS INFRASTRUCTURE COMPLAINTS AND ENQUIRIES

Period	Carriers rights and obligations (Schedule 3)		Deployment of Mobile Phone Network Code		Combined enquiries	Combined Complaints
	<i>Enquiries</i>	<i>Complaints</i>	<i>Enquiries</i>	<i>Complaints</i>		
2006-2007	45	8	59	31	104	32
2007-2008	18	0	13	6	31	6
2008-2009	43	3	15	8	58	11
2009-2010	137	1	48	11	185	12
2010-2011	32	1	104	13	136	14
1/7/2011- 31/3/2012	76	1	21	4	97	5