Company Logo

Summary of Estimated RF EME Levels around the proposed Mobile Phone Base Station at Site Name, Suburb State

Introduction:

Date DD/MM/YY

This report summarises the estimation of maximum cumulative radiofrequency (RF) electromagnetic energy (EME) levels at ground level emitted from the proposed Mobile Phone Base Station antennas at Site Name, Suburb State . Maximum EME levels estimated are at distances of 5.0, 50.0, 100.0, 200.0, 300.0, 400.0, 500.0 m from the base station. The procedures for making the estimates have been developed by the Australian Radiation Protection And Nuclear Safety Agency (ARPANSA)[1]. These are documented in the ARPANSA Technical Report; "Radiated EME Exposure Levels - Prediction Methodologies" which is available at http://www.arpansa.gov.au

EME Health Standard

ARPANSA, an agency of the Commonwealth Department of Health has established a Radiation Protection Standard[2] specifying limits for continuous exposure of the general public to RF transmissions at frequencies used by mobile phone base stations. Further information can be gained from the ARPANSA web site.

The Australian Communications Authority (ACA)[3] mandates exposure limits for continuous exposure of the general public to RF EME from mobile phone base stations. Further information can be found at the ACA website http://internet.aca.gov.au/ACAINTER:HOMEPAGE:pc=PC_2754

Proposed Site Radio Systems

Carrier 1 GSM 900			
Carrier 2 GSM 900			
Etc			

Table of Predicted EME Levels – Proposed

Distance from the antennas at Site name bearing XX ˚ (m)	Maximum Cumulative EME Level - All Carriers (% of ACA mandated exposure limits[4])
5 50 100 200 300 400 500	
Maximum EME level distance m, bearing˚ from the antennas at Site Name	

Note: This estimation is for the maximum level of RF EME at 1.5m above the ground from the proposed antennas. The estimated levels have been calculated on the maximum mobile phone call capacity anticipated for this site. This estimation does not include possible radio signal attenuation due to buildings and the general environment. The actual EME levels will generally be significantly less than predicted due to path losses and the base station automatically minimising transmitter power to only serve established phone calls[5].

Summary – Proposed Radio Systems

RF EME levels have been estimated from the proposed antennas at Site Name, Suburb State . The maximum cumulative EME level at 1.5 m above ground level is estimated to be XX % of the ACA mandated exposure limits.

Issued by: Name, Data reference file – xxxxx.tpf

Existing Site Radio Systems

There are currently no cellular radio systems installed at this site.

Reference Notes:

1. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is a Federal Government agency incorporated under the Health portfolio. ARPANSA is charged with responsibility for protecting the health and safety of people, and the environment, from the harmful effects of radiation (ionizing and non-ionizing).

2. Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), 2002, 'Radiation Protection Standard: Maximum Exposure Levels to Radiofrequency Fields — 3 kHz to 300 GHz', Radiation Protection Series Publication No. 3, ARPANSA, Yallambie Australia.
   [Printed version: ISBN 0-642-79400-6 ISSN 1445-9760]
   [Web version: ISBN 0-642-79402-2 ISSN 1445-9760]

3. The Australian Communications Authority regulates telecommunications and radiocommunications, including licensing, compliance with codes and standards, spectrum management and consumer safeguards. It also represents Australia's communications interests internationally.

4. ACA mandated exposure limits as in force at the issue date of this report. Further information refer to the ACA web site http://internet.aca.gov.au/ACAINTER:STANDARD:pc=PC_2798

5. The EME predictions in this report assume a worst-case scenario being:
   - base station transmitters operating at maximum power (no automatic power reduction)
   - simultaneous telephone calls on all channels
   - an unobstructed line of sight view to the antennas.
   In practice a worst-case scenario is rarely the case. There are often trees and buildings in the immediate vicinity, and cellular networks automatically adjust transmit power to suit the actual telephone traffic. For these reasons, care should be taken when comparing prediction reports & actual measurements, as the predicted levels will often be considerably higher.