

Electromagnetic Radiation Surveys

Under the Radio Communications Act, all services exceeding 100 Watts are required to have an Electromagnetic Radiation Survey (EMR) undertaken.

This is to ensure that all personnel that enter the site to perform work on the ground or in the air are not exposed to EMR in excess of the limits specified by Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

What other services require a survey?

- Sites where the combined total input to a single antenna is greater than 100 Watts, regardless of the individual service power levels. For example, five 25 Watt services combined into one antenna.
- Any transmitting antenna that is mounted in a location accessible to non-RF workers, regardless of power output. For example, roof tops and balconies.

If you are unsure if your services falls under the requirements, contact ZCG's Technical services department for assistance on (03) 5157 1203.

What does an EMR survey involve?

- A full survey of the site. This includes equipment buildings, site compound, tower/mast structure and roof tops.
- Physical site information collected. This includes tower layout, site layout and equipment building layout.
- List of areas surveyed and the levels found. Any area that is found to have levels that are equal to or exceed ARPANSA safety limits will be highlighted with **Yellow (workers only)** or **Red (No entry)**

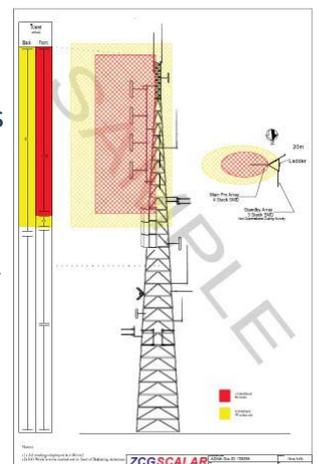
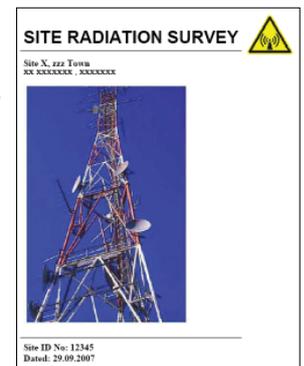
What do you receive after a survey?

- Two copies of the site radiation folder - one to be kept onsite at all times, and one to be kept at your technical office/head office.
- Digital copy (PDF) of site radiation report.

How often does an EMR survey have to be performed?

- Only once, as long as no changes are made to the site.
- If any physical changes are made, a new survey will have to be performed.
- If the power level of a service increases, then a new survey will have to be performed.

To discuss any special requirements, or to find out more information, please contact ZCG's Technical Services Department on (03) 5157 1203



Sample of radiation level drawing with Yellow and Red locations



RF field test meter with sensitive RF cone attachment