



SAFETY ASSESSMENT  
FEDERATION

# Owner / User Guidance

## Workplace Safety Electromagnet (Radio/Phone mast) Emissions

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**The Safety Assessment Federation (SAFed) is concerned over the hazards of working in the vicinity of antennae and masts which emit electromagnetic radiation.**

### What is the hazard?

Electromagnetic radiation is at the lower end of the emission spectrum which includes x-rays. There is much debate on whether the medical evidence shows that exposure to electromagnetic radiation causes significant harm or otherwise. This is mainly because there is insufficient evidence to be sure, although scientific theory suggests that electromagnetic radiation should behave like x-rays: the hazard is increased the closer you are to the source of emission and it can be accumulative, i.e. any damage builds up. It is also known that there are short term minor effects such as headaches and nausea.

In general, the public, who do not get close to high power antennae and masts, are not at major risk but certain persons notably engineer surveyors, servicing engineers, communications engineers, the emergency services and others, who have to access building rooftops and work close to antennae and masts, can be at greater risk. This can be a regular occurrence for engineer surveyors who have to carry out statutory examinations of lifts and specialist access equipment (window cleaning access).

Most communications companies are responsible and take precautions, such as site surveys, to ensure their radiation is not harmful. However, there are areas, notably tall buildings in built up areas, where several such companies have masts together and the accumulative affect of the emissions is unknown but potentially harmful. Some emissions, such as microwave communications, are directional and can be particularly harmful if directed towards an area where people must work.

### The law

The Safety, Health & Welfare at Work Act 2005, Section 8(2)(c), gives general responsibilities to employers for their employees and those who are responsible for a place of work, which can include a rooftop and specific responsibilities concerning radiation at Section 8(2)(d). This also applies to Employers and those responsible for premises, under Section 12 of the Act, which specifies the duties regarding the safety of all persons/workers on site, whether they are employees or otherwise.

This means that employers have a responsibility to train their employees to recognise and respond appropriately and safely to hazards and this may include refusal to work on a site which is assessed as dangerous. It also means that site owners must ensure that so far as is reasonably practicable the site should be safe and free from any known hazards.

Further consideration for a European Directive on the issue is under review, but has yet to be passed.

The Health and Safety Authority (HSA) acknowledge these hazards and advise owners of such areas with antennae and masts to make proper provision to ensure the area is safe for workers, who may in the course of their work require access near such antennae and masts.

### What can be done?

If the hazards are unknown then they should be investigated by a competent person. In the case of emissions this would include a site survey over a representative time period and to mark any areas which could have excessive emissions.

They should also ensure that masts and antennae are not sited close to areas where workers may reasonably require access i.e. close to lift machine rooms or specialist access equipment and support rails. Each area with antennae and masts should have a site map indicating the safe areas for working and any limitations on time.

Any site considered unsafe or where the hazards are unknown and considered significant should not be worked on. SAFed member companies take HSA advice seriously and will not undertake work on sites which are considered unsafe.

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