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OBLIGATIONS OF OWNERS/MANAGERS OF PROPERTIES USED AS RADIOCOMMUNICATIONS SITES¹

Radiocommunications (Radcom) sites are commonly located on buildings such as hotels, hospitals, apartment blocks, shopping centres, office buildings and local government offices because they afford good coverage for the service in question, for example line of sight to a CBD or to a major highway. Radcom sites are also located on industrial and rural properties throughout New South Wales. The actual number of Radcom sites in Australia is unknown, but there are certainly many thousands, some 600 sites being registered in the ACT alone. There are an estimated 10,000 such sites in NSW alone², and some 600 registered in the ACT.

With the notable exception of mobile telephony base stations, the world of Radcom has given rise to very few legal issues for the owners and/or managers of Radcom sites. In 2002, however, the Australian Radiation Protection and Nuclear Safety Agency made the *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields — 3 kHz to 300 GHz (2002)* ('the Standard'). The Standard establishes a recognised methodology for calculating cumulative levels of electromagnetic radiation ('EMR') from Radcom antennas, establishes limits for exposure to EMR for trained radiofrequency workers and others, and sets out a risk management procedure to be followed to ensure that overexposure to EMR does not occur. A copy of the standard may be found at www.arpana.gov.au.

The interaction of the Standard with the *Occupational Health and Safety Act 2000* ('the Act') and the *Occupational Health and Safety Regulation 2000* ('the Regulation') has important and far reaching legal implications for the owners and managers of property on which Radcom antennas are operated. For example, one of the major

insurers for local government is now expressing concern at the failure of Councils to achieve compliance. It is also vital to understand from the outset that EMR is not just about mobile telephone towers or antennas. The issues in this article arise in relation to all Radcom antennas including those operated by *eg* taxi companies, radio and TV broadcasters, paging companies, the emergency services, government Departments and a host of statutory authorities such as public transport bodies.

This article provides a brief outline of EMR and the Standard, examines the nature and extent of the legal obligations imposed on the owners/managers of Radcom sites in their capacity as the 'controllers' of sites within the meaning of the Act, and looks at some compliance issues. (A reference in this article to a provision is a reference to the relevant provision of the Act or the Regulation.)

Outline of EMR and the Standard

Electromagnetic radiation is a 'by product' of the operation of Radcom transmitters. It is emitted in all directions from a transmitter and will pass through some materials. When a new transmitter is added to a group of transmitters it increases the previous overall EMR level – EMR levels are cumulative. If EMR levels are sufficiently high they can cause physical damage through a heating effect. Exposure to EMR levels can be controlled by, for example:

- changes to the operating parameters of transmitters; or
- physical barriers; or
- appropriate access procedures; or
- training of persons who may be exposed to RF radiation.

Variations in EMR levels may result from

- addition of transmitters to a site; or
- changes to the operating parameters of transmitters; or
- the alteration or construction of structures through re-radiation or reflection.

These variations may change the areas at a site at which access must be controlled or prohibited in order to control risk of overexposure.

The Standard establishes limits for exposure to EMR by setting what are known as the general public and occupational exposure reference levels. For these purposes a member of the 'general public' is any person who is not a 'trained RF worker'. Broadly speaking, trained RF workers will only ever be the employees and/or contractors of Radcom licensees, such as RF technicians, who install, maintain or remove Radcom equipment. The relevant exposure limit for trained RF workers is the occupational exposure limit.

The rooftops of buildings used as Radcom sites are commonly visited by a surprising range of people, including lift mechanics, window cleaners, maintenance workers, construction industry personnel, public health inspectors, air-conditioning mechanics, riggers and, last but not least, the occasional smoker escaping from a smoke-free workplace. Generally speaking none of these persons would constitute an RF worker within the meaning of the Standard. For the great majority of the workers on a communications site, therefore, and even though they may be exposed to EMR in the course of their employment, the relevant limit for exposure to EMR is the public exposure reference level.

The Standard sets out a risk management procedure to be followed to ensure that overexposure does not occur. Compliance with the Standard requires, as a minimum:

- determination of the areas where non-occupational exposure levels may be exceeded
- determination of the areas where no access should be permitted

- appropriate restrictions on access to both areas
- appropriate provision of signs or notices complying with AS 1319 (Standards Australia 1994) notification to the relevant competent authority, as required, in the event of the exposure exceeding the relevant limits
- minimising, as appropriate, RF exposure which is unnecessary or incidental to achievement of service objectives or process requirements

Obligations on the Controllers of Radcom Sites under the Act and Regulations

Radcom operators typically hold a lease or licence to occupy the part of a building on which their equipment is located - in some cases they hold a mere licence to install equipment on the rooftop. Because the owners and/or managers of Radcom sites, generally speaking, control all unleased or unlicensed areas of such sites:

- they are the controllers of those areas for subsection 10(1); and
- the obligations imposed on them by that subsection are unlikely to be qualified in any way by the limitations in subsection 10(4).

Subsection 10(1) requires a person who has control, in the course of a trade, business or other undertaking, of premises used by people as a place of work ('controllers') to ensure that the premises are safe and without risks to health.

Regulation 34 requires the controllers of premises to identify any foreseeable hazard arising from the premises that has the potential to harm the health or safety of any person accessing, using or egressing from the premises, including hazards arising from the physical working environment. While regulation 34 does not expressly refer to radiation, it is inconceivable that the expression 'physical working environment' in that regulation would not extend to the same range of issues identified in regulation 9(2)(i) as being relevant to the 'physical working environment' in the context of imposing obligations on employers.

Accordingly, the controllers of communications sites must identify the potential for the exposure to radiation of persons accessing, using or egressing from the areas at the sites that they control. Having identified the potential exposure of persons to radiation as a hazard, the controller of a site must assess and eliminate that risk or, if not practicable to do so, control it by appropriate measures and controls (regulation 35), which the controller must ensure are used and maintained (regulation 36).

As mentioned above, the areas where the exposure reference levels may be exceeded may change when:

- transmitters are added to a site; or
- the operating parameters of transmitters are altered; or
- structures at the site are altered or constructed.

This has important consequences for the controller of a Radcom site, because risk assessments must be reviewed, together with any measures adopted to control the risk 'whenever there is a significant change in the premises or place of work to which the risk assessment relates' (see regulation 37). Furthermore, controllers of premises must 'ensure that hazards are identified.... before the premises are provided for use as a place of work' (regulation 34(3)).

The consequence of the manner in which EMR levels change and these various obligations is that, to meet their obligations under the Act and the Regulation, the controllers of Radcom sites must establish systems which allow for the re-assessment of EMR hazard areas as soon as practicable after any change occurs. If not, the controller is very likely to be in breach of regulations 34, 35, 36 and/or 37.

The maximum penalty for failing to comply with each of those regulations is \$27,500. A relevant contravention of the regulations is also admissible in evidence in any proceedings for an offence against section 10, the maximum penalty for failing to comply with which is:

- in the case of a corporation (being a previous offender) - \$825,000, or

- in the case of a corporation (not being a previous offender) - \$550,000, or
- in the case of an individual (being a previous offender) - \$82,500 or imprisonment for 2 years, or both, or
- in the case of an individual (not being a previous offender) - \$55,000.

Compliance Issues

The EMR-related obligations imposed on the controllers of properties by the Act and the Regulation can essentially be met by compliance with the requirements of the Standard which are outlined above. However, there are a number of legal and practical issues to address in achieving compliance.

The starting point for compliance is identification of the potential hazard, and an assessment of the risk. It is surprisingly common that building controllers have little or no idea of what antennas are on their rooftops. The rooftop is the 'forgotten floor'; historically antennas commanded little or no rent and even now many property owners charge peppercorn rentals for antennas used to provide what they regard as community services. Antennas were frequently installed on little more than a handshake, and some asset managers are blissfully unaware even of the antennas operated by their own organization.

It would also be imprudent to base any hazard assessment on the contents of the Register of Radiocommunications Licences maintained by the ACA. The Register does not contain details of all services actually operating; in some cases because they have not been provided by the relevant Radcom operators, and in others because the details are withheld from the public in the national interest. By contrast, the Register also contains details of services that do not exist, which could also lead to inaccurate assessments.

The only sure method of verifying the existence and nature of the antennas present at a site is a physical inspection, particularly as the EMR levels at a site may also be impacted by nearby high powered antennas. Any compliance system

should, therefore, commence with a physical inspection of the site, unless adequate control over access to the site has definitely been exercised since the last physical inspection was conducted.

Site inspections, assessments of the hazards arising from the antennas, and the determination of hazard zones should all be conducted by persons who are competent in the field. While the Standard does not mandate NATA accreditation to achieve compliance, NATA endorsed assessments will provide the highest confidence that results are accurate, and are generally accepted as meeting due diligence requirements. Selecting a NATA endorsed service provider is not, however, as simple as looking for the NATA logo on a website or letterhead. The scope of the NATA accreditation of a service provider must cover both the measurements and predictions required in order to allow for the report required to be NATA endorsed³. A guide to selecting a NATA accredited supplier, including a range of questions that might be asked, can be found at the 'Publications' page of www.baileydixon.com.au.

A particularly important issue to bear in mind is the need for continuing compliance imposed by regulations 34 and 37, which together require that a significant change in premises or a place of work must be assessed before premises are made available as a place of work. The operating parameters of transmitters can be altered remotely, leading to changes in hazard zones without any visible alteration to infrastructure at the site. Compliance arrangements cannot, therefore, rely on site controllers becoming aware of relevant changes through access arrangements, and should require that all relevant changes at a Radcom site be notified by those who give rise to them. The arrangements should then provide for the impact of the changes on hazard zones to be assessed, and necessary changes to signage and/or physical barriers to entry to be implemented before the premises are again made available as a place of work.

A related and major practical compliance issue is the relatively small number of persons in Australia who are sufficiently skilled to undertake EMR assessments compared to the vast number of sites. Accordingly, practitioners should ensure that proposed service providers are appropriately bound to update assessments within timeframes that will enable the site controllers to meet their own obligations and conduct their business in a timely manner. If not, sites will have to be closed pending re-assessment and updating of signage etc, potentially resulting in delays in carrying out any activity on rooftops, including basic maintenance. Nor could this easily be avoided by arranging 'outages', as without appropriate assessment it may be difficult to know which antennas must cease operating in order to render any particular area safe.

Compliance arrangements should also preferably provide a means by which controllers of premises meet their obligations to provide information on hazards *etc* to any other employers who use the premises as a place of work (regulation 38). That obligation is normally met by providing site visitors with access to a document called a 'site radiation folder' (SRF). Given that access to Radcom equipment is often required out of hours, the arrangements for information should undoubtedly go beyond the normal practice of placing SRFs in locked equipment cabinets. It is, of course, necessary that the information in the SRF be accurate and reflect all changes before the premises are made available as a place of work.

A unique aspect of the EMR-related obligations imposed by the Standard, the Act and the Regulation is that the compliance of the site controllers depends greatly on the actions of the Radcom operators at the site. This is because it is the operating parameters of antennas which largely determine both the cumulative levels of radiation, and the places where those levels exceed the exposure limits. Similarly, compliance by a Radcom operator with its own EMR-related obligations under the Act and the Regulation will largely depend on the actions of both other Radcom operators who share a site, and on the controller of the site.

The legal issues surrounding the preparation, maintenance and public display of accurate and up-to-date site radiation folders add yet another layer of complexity to this unusual mutual interdependence. Service providers undertaking these tasks will necessarily depend on the provision and timely updating of accurate information by both the site controller and the Radcom operators. If they cannot do so, the hazard diagrams that they produce and display to the world as representing the EMR hazard at a site at any particular time, are likely to be at best misleading and at worst dangerous. This means that, at a minimum, the controller of a site, each Radcom operator at the site and the relevant EMR service provider must all be party to legally binding arrangements to deal with the EMR-related obligations at the site. Establishing bilateral EMR management arrangements between owners and Radcom operators in occupation agreements such as leases and licences should, therefore, be avoided.

A final word of warning. The nature of the obligations under the Act and the Regulations is clear – they are absolute (*Ridge Consolidated Pty Ltd v Manger* (2002) 115 IR 78 at [32]), and advisers to site controllers must exercise caution. While the operators of Radcom antennas must comply with certain conditions imposed on the licences issued to them under the *Radiocommunications Act 1992* which expressly refer to the Standard, compliance with those conditions will not in any way meet the obligations of site controllers. The Deployment of Radiocommunications Infrastructure Code, a code registered under Part 6 of the *Telecommunications Act 1997* also refers to the Standard. Once again, the fact that carriers at a site may comply with the Code does not mean that the controller of the site will comply with its EMR-related obligations. The controller of a site must take steps to meet its own obligations, and cannot assume that one or more of the Radcom operators at a site will discharge those duties on its behalf in meeting their own various legal obligations. To make such an assumption would be a clear breach of the requirements of the OH&S Act.

About the Author

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ENDNOTES

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² The Australian Communications Authority's register of radiocommunications licences shows 14,090 sites registered in areas covered by NSW postcodes. However, not every registered site has a transmitter registered for operation at that location, and there is some duplication in the naming of sites. But on the other hand, some sites are not registered at all.

³ A guide to selecting a NATA accredited supplier, including a range of questions that might be asked, can be found at the 'Publications' page of www.baileydixon.com.au.

IMPORTANT NOTE

The information in this Article is neither comprehensive nor legal advice, and is only intended to either summarize or draw attention to the subject matter. Bailey Dixon has not provided the information with the intention that you should rely on it unless you have first obtained professional advice appropriate to your circumstances. You must assess the information yourself, and if you do rely on it you do so wholly at your own risk