



## **Radiocommunications Licence Conditions (Apparatus Licence) Determination 2015**

The AUSTRALIAN COMMUNICATIONS AND MEDIA AUTHORITY makes this Determination under paragraph 107 (1) (f) of the *Radiocommunications Act 1992*.

Dated *20<sup>th</sup> February 2015*

*Chris Chapman*  
[signed]  
Member

*Richard Bean*  
[signed]  
Member / ~~General Manager~~

Australian Communications and Media Authority

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## Part 1 Preliminary

### 1 Name of Determination

This Determination is the *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2015*.

### 2 Commencement

This Determination commences on the day after it is registered.

*Note* All legislative instruments and compilations are registered on the Federal Register of Legislative Instruments kept under the *Legislative Instruments Act 2003*. See <http://www.frli.gov.au>.

### 3 Scope

- (1) This Determination sets out conditions to which a transmitter licence issued under section 100 or 100B of the Act is subject.
- (2) However, if a condition in this Determination is inconsistent with a condition specified in the licence, the condition specified in the licence applies.

### 4 Interpretation

- (1) In this Determination, unless the contrary intention appears:

*Act* means the *Radiocommunications Act 1992*.

*ARPANSA standard* means 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.

*Note* The ARPANSA standard may be obtained from the Australian Radiation Protection and Nuclear Safety Agency website <http://www.arpansa.gov.au>.

*AS 2772.2* means the former Australian Standard AS 2772.2 *Radiofrequency radiation Part 2: Principles and methods of measurement—300 kHz to 100 GHz* published by Standards Australia.

*AS/NZS 2772.1* means the former Australian/New Zealand Standard AS/NZS 2772.1 (Int):1998 *Radiofrequency fields Part 1: Maximum exposure levels—3 kHz to 300 GHz* published by Standards Australia and Standards New Zealand.

*AS/NZS 2772.2* means the Australian/New Zealand Standard AS/NZS 2772.2 *Radiofrequency fields Part 2: Principles and methods of measurement and computation—3 kHz to 300 GHz* published by Standards Australia and Standards New Zealand.

*far field*, of an antenna, means the region at distances from the antenna greater than the larger of:

- (a)  $2D^2/\lambda$ ; and
- (b)  $0.5 \lambda$ ;

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where:

$\lambda$  is the wavelength of the RF field.

$D$  is the maximum lineal dimension of the antenna.

**licence** means a transmitter licence.

**licensee** means the holder of a licence, including a person authorised by the licensee to operate a transmitter under the licence.

**member of the general public** means a person who is not a RF worker.

**mobile station** means a transmitter that is established for use:

- (a) in motion, on land, water or in the air; or
- (b) in a stationary position at unspecified points on land, water or in the air.

*Note* In this Determination, the term **mobile station** is defined to mean a **transmitter** as set out in subsection 8(2) of the Act. The term excludes radiocommunications receivers.

**NATA** means the National Association of Testing Authorities Australia (ACN 004 379 748).

**NATA-accredited body** means a body accredited by NATA to assess or measure radiofrequency field strength levels in accordance with AS 2772.2 or AS/NZS 2772.2.

**reference levels** means the reference levels mentioned in Tables 7 and 8, and the notes to Tables 7 and 8, of section 2.4 of the ARPANSA standard.

**RF field** means a physical field, which specifies the electric and magnetic states of a medium or free space, quantified by vectors representing the electric field strength and the magnetic field strength.

**RF worker** means a person who may be exposed to RF fields under controlled conditions, in the course of and intrinsic to the nature of their work.

**Spectrum Plan** means the spectrum plan prepared under subsection 30(1) of the Act, as in force from time to time.

**Standards Australia** means Standards Australia Limited, (ACN 087 326 690).

**Standards New Zealand** means the Standards Council of New Zealand, trading as Standards New Zealand.

*Note* For definitions of other expressions used in this Determination, see the Act, the *Radiocommunications Regulations 1993*, the *Radiocommunications (Interpretation) Determination 2015* and the Glossary of the ARPANSA Standard.

(2) A reference in this Determination to:

- (a) an instrument made under the Act; or
- (b) a document or publication by Standards Australia; or
- (c) a document or publication by the ACMA;

includes a reference to the instrument, publication or document as in force or existing from time to time.

(3) A term that is:

- (a) used (but not defined) in this Determination; and
- (b) defined in the Glossary of the ARPANSA standard;

has the meaning given by that Glossary.

**5 Revocation of previous Determination**

The *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2003* (Federal Register of Legislative Instruments No. F2013C00368) is revoked.

## Part 2                      Operation of transmitters – general conditions

### 6                      Conditions

- (1) Every licence is subject to the conditions in this Part and Part 3 of this Determination relating to the operation of any transmitter under the licence by the licensee.

*Note* A licensee is required, when operating under an apparatus licence (see subsection 97(4) of the Act), to comply with any licence conditions and any conditions on the licence made by the ACMA. This Determination sets out licence conditions that ensure that electromagnetic radiation (RF levels) emitted by a transmitter operated by the licensee do not exceed safe levels for general public exposure. The licensee is responsible for ensuring compliance with the requirements in this Determination.

- (2) However, Part 3 of this Determination does not apply in relation to:
- (a) the operation of a transmitter under a licence of a type mentioned in item 15 of Schedule 1 to the *Radiocommunications (Specified Radiocommunications Receivers and Types of Transmitter Licences and Receiver Licences) Determination 2014*, by a licensee; or

*Note* Item 15 refers to a space licence.

- (b) the operation of a mobile station that complies with the *Radiocommunications (Electromagnetic Radiation—Human Exposure) Standard 2014*.

### 7                      Permitted communications

The licensee must operate a transmitter only to communicate with a station or receiver with which the licensee is permitted by the terms of the licence to communicate, unless:

- (a) the transmission of a message is in relation to a distress or emergency situation; or
- (b) the licensee is authorised, in writing, by the ACMA or an inspector, to communicate with another station or receiver in relation to the investigation of interference.

*Note* In accordance with the requirements of footnote AUS 32 and footnote 150 to the Table of Allocations in the Spectrum Plan, receivers will not be afforded protection from interference that may be caused by industrial, scientific and medical (*ISM*) applications in the following ISM bands:

- (a) 13533 to 13567 kHz;
- (b) 26957 to 27283 kHz;
- (c) 40.66 to 40.70 MHz;
- (d) 918 to 926 MHz;
- (e) 2400 to 2500 MHz;
- (f) 5725 to 5875 MHz;
- (g) 24.00 to 24.25 GHz.

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## Part 3                      Operation of transmitters –    electromagnetic radiation    requirements

### 8                      Power flux density and field strengths

- (1) The RF field produced by a transmitter operated under the licence must not exceed the reference levels for general public exposure at a place accessible to a member of the general public.
- (2) For subsection 9(3) and paragraphs 10(2)(a), 12(1)(b) and 13(1)(b), if the transmitter operates on a frequency of more than 10 MHz, only 1 of the following properties needs to be measured or calculated to show compliance with subsection (1) at places in the far field of the antenna:
  - (a) electric field strength;
  - (b) magnetic field strength; or
  - (c) power flux density.
- (3) If a transmitter simultaneously transmits on multiple frequencies, the transmitter must meet the requirements specified in section 3 (Simultaneous exposure to multiple frequency fields) of the ARPANSA standard.

Example:                      For subsection (1), the following are examples of a type of place that is accessible to a member of the general public:

- a private residence;
- a public park;
- a building roof-top with a transmitter antenna located on the roof-top, where access is not restricted by the site manager or operator.

### 9                      Level 1 criteria

- (1) This section applies to a transmitter (other than a mobile station):
  - (a) for which:
    - (i) the average total power supplied by the transmitter to all antennas fed by the transmitter is not more than 100 W; and
    - (ii) each antenna fed by the transmitter is installed so that it is inaccessible to a member of the general public; or
  - (b) for which:
    - (i) the bottom of the lowest antenna fed by the transmitter is at least 10 m above ground level; and
    - (ii) the average total equivalent isotropically radiated power of all antennas fed by the transmitter is not more than 3200 W in any direction; or
  - (c) that is a point-to-point link operating at more than 1 GHz.

Example:                      For subparagraph (a)(ii), the following are examples of a type of place that is inaccessible to a member of the general public:

- the area around an antenna that is fenced and where entry is through a locked gate;
  - the area around a tower where the tower cannot be climbed except by the use of an external aid.
- (2) This section applies to a mobile station for which the average total power supplied by the station to all antennas fed by the station is not more than 100 W.
- (3) The licensee must give information to the ACMA, within 20 days after the date of a request by the ACMA, showing that the licensee is complying with section 8 in relation to the transmitter.
- (4) If the licensee is unable to comply with a request under subsection (3) within the 20 days the licensee must:
- (a) advise the ACMA in writing; and
  - (b) include evidence that the licensee is unable to comply; and
  - (c) propose a date by which the licensee will be able to comply.
- (5) Any advice provided under subsection (4) must be received by the ACMA within 20 days of the original request for information.
- (6) The ACMA must have regard to any written advice provided under subsection (4) before instituting regulatory action against the licensee for contravening subsection (3).
- (7) If the ACMA elects not to take regulatory action mentioned in subsection (6) against the licensee, the ACMA must advise the licensee of this as soon as practicable.

*Note* Regulatory action by the ACMA against a licensee to suspend or cancel an apparatus licence under section 126 or 128 of the Act is reviewable under section 285 of the Act.

## 10 Level 2 criteria

- (1) This section applies to a transmitter to which section 9 does not apply.
- (2) A licensee must:
- (a) be able to show that the licensee complies with section 8 in relation to the transmitter by measuring or calculating RF fields in accordance with AS/NZS 2772.2; and
  - (b) keep records in accordance with section 15.
- (3) If the licensee spatially averages measurements taken for paragraph (2)(a), the licensee must do so in accordance with section 2.7 of the ARPANSA standard.

### *Measurements and calculations under AS 2772.2*

- (4) A licensee who, before 23 May 2013:
- (a) measured RF fields produced by a transmitter in accordance with AS 2772.2; or

(b) calculated RF fields produced by a transmitter using a model or method derived from the mathematical formulae mentioned in Appendix B to AS 2772.2;

under the former measurement provision is taken to have complied with the requirement in paragraph (2)(a) to show compliance with section 8 in relation to the transmitter.

(5) In this section:

*former measurement provision* means subsection 10(2) of the *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2003* as in force immediately before 23 May 2013.

*Note* AS 2772.2 was replaced by AS/NZS 2772.2 in May 2011. On 23 May 2013, the *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2003* was amended to adopt the updated standard.

## 10A Compliance with Determination after amendment of Standard

(1) This section applies if AS/NZS 2772.2 is amended (the *amended standard*).

(2) A licensee who measured or calculated RF fields produced by a transmitter:

(a) either before or within a period less than 1 year after the date the amended standard takes effect (the *amendment date*); and

(b) in accordance with AS/NZS 2772.2 as in force immediately before the amendment date;

is taken to have complied with the requirement in paragraph 10(2)(a) to show compliance with section 8 in relation to the transmitter.

## 11 Change to an installed transmitter

(1) If a transmitter to which section 9 applies is changed so that the requirements in section 9 no longer apply to it, the transmitter must be reassessed in accordance with section 10.

(2) A change to the transmitter includes:

(a) moving it to a different site; or

(b) altering the amount of power fed to its antennas; or

(c) changing the characteristics of any of its antennas, including:

(i) gain; or

(ii) size; or

(iii) height above the ground or other accessible surface; or

(iv) tilt; or

(d) altering its transmission designator.

## 12 Multi-transmitter sites

(1) This section applies to a licensee that:



- (a) operates a transmitter on a site that has more than 1 transmitter; and
  - (b) keeps documentation that:
    - (i) includes the results of an assessment in accordance with paragraph (10)(2)(a); and
    - (ii) shows that the transmitters on the site, taken as a whole, comply with section 8.
- (2) If the licensee:
- (a) is requested to give the ACMA documentation under subsection 9(3); and
  - (b) gives the ACMA all of the documentation the licensee keeps under paragraph 12(1)(b);
- the licensee is taken to have complied with subsection 9(3).
- (3) A licensee that keeps documentation referred to in paragraph 12(1)(b) is taken to have complied with paragraph 15(1)(e).

*Note* Paragraph 15(1)(e) deals with records containing results and methods of assessments under paragraph 10(2)(a) or subsection 13(1).

### **13 Exception to ARPANSA standard – compliance documentation before 1 March 2003**

- (1) This section applies to a licensee that, before 1 March 2003, obtained documentation showing that:
- (a) the RF field produced by the transmitter operated under the licence does not exceed the exposure levels mentioned in sections 6.3, 6.7 and 6.8 of AS/NZS 2772.1 at a place accessible to a member of the general public; and
  - (b) the RF field was:
    - (i) measured in accordance with AS 2772.2; or
    - (ii) calculated using a model or method that was derived from the mathematical formulae mentioned in Appendix B to AS 2772.2.
- (2) If the licensee:
- (a) is requested to give the ACMA documentation under subsection 9(3); and
  - (b) gives the ACMA all of the documentation the licensee keeps under subsection (1);
- the licensee is taken to have complied with subsection 9(3).
- (3) A licensee that:
- (a) operates a transmitter to which subsection 10(1) applies; and
  - (b) keeps documentation obtained under subsection (1);
- is taken to have complied with paragraph 15(1)(e).
- (4) If the licensee:
- (a) operates a transmitter on a site with more than 1 transmitter; and

(b) is requested to give the ACMA documentation under subsection 9(3);  
and

(c) gives the ACMA documentation that:

(i) includes the results of an assessment in accordance with  
paragraph (1)(b); and

(ii) shows that the transmitters on the site, taken as a whole, do not  
exceed the exposure levels mentioned in sections 6.3, 6.7 and 6.8  
of AS/NZS 2772.1 at a place accessible to a member of the  
general public;

the licensee is taken to have complied with subsection 9(3).

(5) A licensee that:

(a) operates a transmitter on a site with more than 1 transmitter; and

(b) keeps documentation mentioned in paragraph (4)(c);

is taken to have complied with paragraph 15(1)(e).

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## Part 4                      Records

### 14            Application of this Part

This Part applies to a transmitter to which section 10 applies.

### 15            Records

- (1) A licensee must keep the following records:
  - (a) a declaration of conformity, for the transmitter, that includes the information mentioned in subsection (2);
  - (b) if the licensee uses an agent under section 18—a copy of the agency agreement;
  - (c) the name and qualifications of any person who has assessed the transmitter for compliance;
  - (d) the dates of any assessments;
  - (e) the results of any assessments obtained in accordance with paragraph 10(2)(a) or subsection 13(1), including any method of assessment; and
  - (f) details of the transmitter including its power level, gain, size, tilt, manufacturer, model number and emission designator.
- (2) For paragraph (1)(a), the information is:
  - (a) the licensee's name, address, ACN (if any), ABN (if any) or ARBN (if any), transmitter licence type and licence number; and
  - (b) details of the transmitter, including its location, antenna type and height above the ground or other accessible surface; and
  - (c) a statement that the RF field produced by the transmitter meets the requirements of subsection 8(1); and
  - (d) the name and position in the organisation of the person who signs the declaration.
- (3) The licensee must amend the declaration of conformity in accordance with any changes to the information included in it.
- (4) A record:
  - (a) must be kept for at least 12 months after the licence has expired; and
  - (b) must be available for inspection by the ACMA at a place nominated by the ACMA, or by a method nominated by the ACMA, after consultation with the licensee; and
  - (c) must be kept in English; and
  - (d) may be a copy of an original record; and
  - (e) may be kept in electronic form.
- (5) Without limiting paragraph (4)(b), the place may be:
  - (a) the licensee's street address, in Australia, provided on the licence application; or

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- (b) for a site on which more than 1 transmitter is located—at the street address of the transmitter.

## 16 Provision of information to authorised officer

- (1) The licensee must give information to the ACMA about the licensee's compliance with this Determination:
- (a) within 20 days after the date of a request by the ACMA; and
  - (b) if the ACMA has specified how the information is to be provided—in the specified way.
- (2) If the licensee is unable to comply with a request under subsection (1) within the 20 days, the licensee must:
- (a) advise the ACMA in writing; and
  - (b) include evidence that the licensee is unable to comply; and
  - (c) propose a date by which the licensee will be able to comply.
- (3) Any advice provided under subsection (2) must be received by the ACMA within 20 days of the original request for information.
- (4) The ACMA must have regard to any written advice provided under subsection (2) before instituting regulatory action against the licensee for contravening subsection (1).
- (5) If the ACMA elects not to take regulatory action mentioned in subsection (4) against the licensee, the ACMA must advise the licensee of this as soon as practicable.
- (6) If the information is not provided electronically, the ACMA must:
- (a) give the licensee a receipt for the information; and
  - (b) must return the document to the licensee as soon as practicable within 60 days after receiving the information.

*Note* Regulatory action by the ACMA against a licensee to suspend or cancel an apparatus licence under section 126 or 128 of the Act is reviewable under section 285 of the Act.

## 17 Dispute over reliability of evaluation provided in compliance documentation

- (1) If a licensee and the ACMA do not agree about whether a transmitter complies with section 8, the ACMA may request the licensee:
- (a) to have the transmitter assessed by a NATA-accredited body for compliance with section 8; and
  - (b) to obtain a report setting out whether or not the transmitter complies; and
  - (c) provide the report to the ACMA.
- (2) The licensee must comply with a request under subsection (1) within 30 days after the date of the request.

- (3) The licensee must pay all costs associated with providing information under subsection (1) to the ACMA.

## **18 Agents**

- (1) A licensee may use an agent:
  - (a) to ensure that a transmitter complies with this Determination; and
  - (b) to keep documents that the licensee is required to keep under this Determination.
- (2) If the licensee uses an agent, the licensee and the agent must keep a copy of the agency agreement for the same period that records must be kept under this Determination.