

EXPLANATORY STATEMENT

Approved by the Australian Communications and Media Authority

Radiocommunications Act 1992

Radiocommunications (Electromagnetic Radiation – Human Exposure) Amendment Standard 2019 (No. 1)

Authority

The Australian Communications and Media Authority (**the ACMA**) has made the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Amendment Standard 2019 (No. 1)* (**the instrument**) under subsection 162(1) of the *Radiocommunications Act 1992* (**the Act**) and subsection 33(3) of the *Acts Interpretation Act 1901* (**the AIA**).

Subsection 162(1) of the Act relevantly provides that the ACMA may, by legislative instrument, make standards for the performance of specified devices. Paragraph 162(3)(f) provides that standards are to consist only of such requirements as are necessary or convenient for protecting the health or safety of persons who operate or work on, use services supplied by means of, or are reasonably likely to be affected by the operation of, radiocommunications transmitters or radiocommunications receivers.

Subsection 33(3) of the AIA relevantly provides that where an Act confers a power to make a legislative instrument, the power shall be construed as including a power exercisable in the like manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend, or vary any such instrument.

Purpose and operation of the instrument

Regulatory arrangements for electromagnetic energy (**EME**), electromagnetic compatibility, and radiocommunications devices are intended to minimise health, safety and interference risks associated with the supply and operation of intentionally and non-intentionally emitting devices.

Radiocommunications standards made under subsection 162(1) of the Act form part of the regulatory framework under the Act for the management of radiocommunications spectrum in Australia.

The ACMA regulates human exposure to radiofrequency (**RF**) EME emissions from consumer equipment (such as mobile telephone handsets) and radiocommunications facilities (such as mobile telephone base stations) through:

- regulatory arrangements for mobile and portable transmitters at the point of supply to the Australian market, including testing, labelling and record keeping obligations; and
- licence conditions on the operation of radiocommunications transmitters.

The objective of the arrangements is to ensure that public exposure to EME from radio transmitters does not exceed the Australian exposure limits published by the Australian Radiation Protection and Nuclear Safety Agency (**ARPANSA**).

The instrument amends the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2014* (**the Standard**) to ensure that certain radiocommunications transmitters that will be operating on frequencies up to 6 GHz (such as Wi-Fi routers and initial deployments of 5G equipment) are tested in accordance with the latest international measurement standards and are compliant with labelling requirements for Australia's EME standards.

The Standard specifies EME exposure limits for mobile stations, which are defined to be a subset of radiocommunications transmitters, and the test method a supplier must follow to determine the specific absorption rate (**SAR**) or RF fields associated with those transmitters. The test methods

required by the Standard are those set out in particular Australia/New Zealand standards and international test method standards.

Since the Standard was made, two of the international test method standards mandated by the Standard have been replaced by versions that increase the applicable frequency range to 300 MHz to 6 GHz (the previous version of those standards covered the range 300 MHz to 3 GHz). The instrument amends the Standard to refer to the replacement international test method standards, and makes some other minor changes to make the Standard consistent with other legislative instruments.

A provision-by-provision description of the instrument is set out in the notes at **Attachment A**.

The instrument is a legislative instrument for the purposes of the *Legislation Act 2003 (the LA)*.

Documents incorporated by reference

The instrument inserts into the Standard references to documents and writing as in existence from time to time, as permitted by section 314A of the Act.

The instrument inserts references to the following documents and writing as in existence from time to time, which are already referred to in the Standard:

- *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz (ARPANSA Standard)*, published by ARPANSA;
- EN 62209-2, *Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation and procedures – Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz (EN 62209-2)*, published by the European Committee for Electrotechnical Standardisation (CENELEC);
- IEC 62209-2, *Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation and procedures – Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz) (IEC 62209-2)*, published by the International Electrotechnical Commission (IEC).

Copies of the ARPANSA standard may be obtained free of charge from the ARPANSA website (<http://www.arpansa.gov.au>). Copies of EN 62209-2 and IEC 62209-2 may be obtained for a fee from a Standards Australia distributor listed on the Standards Australia website (<http://www.standards.org.au/search-for-a-standard>) or can otherwise be made available for viewing on prior request at an ACMA office, subject to licensing conditions. Replacement documents (if any) will be made available in like manner.

The documents being incorporated into the Standard for the first time are:

- Australia/New Zealand Standard *AS/NZS 2772.2:2016 Radiofrequency fields: Part 2: Principles and methods of measurement and computation – 3 kHz to 300 GHz (AS/NZS 2772.2)*, published by Standards Australia;
- EN 62209-1, *Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1: Devices used next to the ear (Frequency range of 300 MHz to 6 GHz) (EN 62209-1)*, published by CENELEC;
- any document published by CENELEC that is expressed to replace EN 62209-1;

- IEC 62209-1, *Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1: Devices used next to the ear (Frequency range of 300 MHz to 6 GHz)* (**IEC 62209-1**), published by the IEC;
- any document published by the IEC that is expressed to replace IEC 62209-1;
- any document published by ARPANSA that is expressed to replace the ARPANSA Standard;
- any document published by Standards Australia that is expressed to replace AS/NZS 2772.2;
- any document published by CENELEC that is expressed to replace EN 62209-2;
- any document published by the IEC that is expressed to replace IEC 62209-2.

Copies of AS/NZS 2772.2, EN 62209-1 and IEC 62209-1 may be obtained for a fee from a Standards Australia distributor listed on the Standards Australia website (<http://www.standards.org.au/search-for-a-standard>) or can otherwise be made available for viewing on prior request at an ACMA office, subject to licensing conditions. Replacement documents (if any) will be made available in like manner.

Consultation

Before the instrument was made, the ACMA was satisfied that consultation was undertaken to the extent appropriate and reasonably practicable, in accordance with section 17 of the LA.

Subsection 163(1) of the Act requires that before the ACMA makes a standard the ACMA must, so far as is practicable, try to ensure that interested persons have had an adequate opportunity to comment on the proposed standard and that due consideration has been given to any representations made.

The ACMA conducted a public consultation process in relation to the proposal to make the instrument during the period 14 August 2019 to 13 September 2019. A draft instrument and explanatory information was made available on the ACMA website. Interested parties were notified of the release of the draft instrument and invited to comment.

The ACMA received six submissions in response to the consultation and these were considered when making the instrument. All submissions expressed support for the proposed amendments.

Regulatory impact assessment

A preliminary assessment of the proposal to make the instrument was conducted by the Office of Best Practice Regulation (**OBPR**), based on information provided by the ACMA, for the purposes of determining whether a Regulation Impact Statement (**RIS**) would be required. OBPR advised that a RIS would not be required because the proposed regulatory changes in this instrument have only a minor and machinery regulatory impact on businesses, community organisations or individuals (OBPR reference number 25198).

Statement of compatibility with human rights

Subsection 9(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* requires the rule-maker in relation to a legislative instrument to which section 42 (disallowance) of the LA applies to cause a statement of compatibility to be prepared in respect of that legislative instrument.

The statement of compatibility set out below has been prepared to meet that requirement.

Overview of the instrument

The instrument amends the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2014 (the Standard)* made under subsection 162(1) of the *Radiocommunications Act 1992*. The Standard specifies electromagnetic energy exposure limits for mobile stations, which are defined to be a subset of radiocommunications transmitters, and the test method a supplier must follow to determine the specific absorption rate or radiofrequency fields associated with those transmitters.

Two of the international test method standards mandated by the Standard have been replaced by new standards that increase the applicable frequency range to 300 MHz to 6 GHz (the previous version of those standards covered the range 300 MHz to 3 GHz). Consequently, the instrument amends the Standard to adopt the replacement versions of the international test method standards.

Human rights implications

The ACMA has assessed whether the instrument is compatible with human rights, being the rights and freedoms recognised or declared by the international instruments listed in subsection 3(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* as they apply to Australia.

Having considered the likely impact of the instrument and the nature of the applicable rights and freedoms, the ACMA has formed the view that the instrument does not engage any of those rights or freedoms.

Conclusion

The instrument is compatible with human rights as it does not raise any human rights issues.

Notes to the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Amendment Standard 2019 (No. 1)*

Section 1 Name

This section provides for the instrument to be cited as the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Amendment Standard 2019 (No. 1)* (**the instrument**).

Section 2 Commencement

This section provides for the instrument to commence at the start of the day after it is registered on the Federal Register of Legislation.

The Federal Register of Legislation may be accessed free of charge at www.legislation.gov.au.

Section 3 Authority

This section identifies the provision of the Act that authorises the making of the instrument, namely subsection 162(1) of the *Radiocommunications Act 1992* (**the Act**).

Section 4 Amendments

This section provides that Schedule 1 amends the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2014* (**the Standard**), as set out in the applicable items in the Schedule.

Schedule 1 – Amendments

Item 1 Subsection 5(1) (definition of *ARPANSA Standard*)

This item replaces the definition of *ARPANSA Standard* so that, if 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, is replaced by a later document, then the later document is incorporated by reference into the Standard.

Item 2 Subsection 5(1) (definition of *AS/NZS 2772.2*, including the note)

This item replaces the definition of *AS/NZS 2772.2* so that, if the Australian Standard/New Zealand Standard *AS/NZS 2772.2:2016 Radiofrequency fields: Part 2: Principles and methods of measurement and computation – 3kHz to 300 GHz (AS/NZS 2772.2)*, published by Standards Australia, is replaced by a later document, then the later document is incorporated by reference into the Standard.

This item also replaces the note to the definition to state that the *AS/NZS 2772.2* may be obtained for a fee from a Standards Australia distributor listed on the Standards Australia website or can otherwise be made available for viewing on prior request at an ACMA office, subject to licensing conditions.

Item 3 Subsection 5(1) (definition of EN 62209-1, including the note)

This item replaces the definition of *EN 62209-1* to mean the *Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1: Devices used next to the ear (Frequency range of 300 MHz to 6 GHz)* (**EN 62209-1**), published by the European Committee for Electrotechnical Standardisation (**CENELEC**). EN 62209-1 has replaced an earlier version of this standard, and covers a greater frequency range than the earlier version.

A new paragraph (b) has been included in the definition to state that if a later document published by CENELEC is expressed to replace EN 62209-1, then the later document is incorporated by reference into the Standard.

This item also amends the note to state that EN 62209-1 may be obtained for a fee from a Standards Australia distributor listed on the Standards Australia website or can otherwise be made available for viewing on prior request at an ACMA office, subject to licensing conditions.

Item 4 Subsection 5(1) (definition of EN 62209-2, including the note)

This item updates the definition of *EN 62209-2* so that, if the *Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices — Human models, instrumentation, and procedures — Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)* (**EN 62209-2**), published by the CENELEC is replaced by a later document, then the later document is incorporated by reference into the Standard.

This item also amends the note to state that EN 62209-2 may be obtained for a fee from a Standards Australia distributor listed on the Standards Australia website or can otherwise be made available for viewing on prior request at an ACMA office, subject to licensing conditions.

Item 5 Subsection 5(1) (definition of IEC 62209-1, including the note)

This item replaces the definition of *IEC 62209-1* to mean the *Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1: Devices used next to the ear (Frequency range of 300 MHz to 6 GHz)* (**IEC 62209-1**), published by the International Electrotechnical Commission (**IEC**). IEC 62209-1 has replaced an earlier version of this standard, and covers a greater frequency range than the earlier version.

A new subsection has been included in the definition to state that if a later document published by the IEC is expressed to replace IEC 62209-1, then the later document is incorporated by reference into the Standard.

This item also amends the note to state that IEC 62209-1 may be obtained for a fee from a Standards Australia distributor listed on the Standards Australia website or can otherwise be made available for viewing on prior request at an ACMA office, subject to licensing conditions.

Item 6 Subsection 5(1) (definition of IEC 62209-2, including the note)

This item updates the definition of *IEC 62209-2* so that, if the *Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices — Human models, instrumentation, and procedures — Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of*

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30 MHz to 6 GHz) (IEC 62209-2), published by the IEC, is replaced by a later document, then the later document is incorporated by reference into the Standard.

This item also amends the note to state that IEC 62209-2 may be obtained for a fee from a Standards Australia distributor listed on the Standards Australia website or can otherwise be made available for viewing on prior request at an ACMA office, subject to licensing conditions.

Item 7 Subsection 5(2)

This item repeals and replaces the subsection to provide that, unless specified otherwise, instruments and documents that are incorporated into the Standard by reference are incorporated as in force or as in existence from time to time, as permitted by section 314A of the Act.

Item 8 After section 7

This item inserts a new section outlining the transitional arrangements that apply to the importation, manufacture or modification of relevant devices in the period ending three months after commencement of the instrument. The new section provides that radiocommunications transmitters manufactured or imported no later than three months after the commencement of the instrument are taken to comply with the Standard if they comply with the Standard as it was before it was amended by the instrument. That is, such radiocommunications transmitters will not have to comply with the changes made by the instrument, so long as they comply with the Standard as in force immediately before the instrument commenced.

This section also provides that radiocommunications transmitters that have been altered or modified in a material respect after their manufacture or importation, but not later than three months after the commencement of the instrument, are taken to comply with the Standard if they comply with the Standard as it was before it was amended by the instrument. That is, such radiocommunications transmitters will not have to comply with the changes made by the instrument, so long as they comply with the Standard as in force immediately before the instrument commenced.

Item 9 Subsection 9(1)

This item makes a consequential change as a result of item 11.

Item 10 Paragraph 9(1)(b)

This item expands the application of section 9 to include radiocommunications transmitters operating above 3 GHz, but at or below 6 GHz (consistently with the replacement versions of EN 622091 and IEC 62209-1).

Item 11 After section 9

This item inserts a new section 9A that establishes transitional arrangements for aware user devices and non-aware user devices used in close proximity to the human ear.

The new section applies to a device that is designed to be used or held with the radiating part of the device in close proximity to the human ear and transmits on a frequency in the frequency band 300MHz to 3GHz (inclusive), does not transmit on a frequency above 3GHz, and was either manufactured or imported, altered or modified no later than three months after the commencement of the instrument.

Subsection 9A(2) has the effect that the measurement methods to determine if the device meets the standard of performance in subsection 8(1) or 8(2) may be either those described in section 9 of the instrument as in force before the commencement of the instrument or section 9 of the Standard, as in force from time to time. That is, such devices can be tested using the measurement methods set out in either the previous versions of EN62209-2 or IEC 62209-2, or in the current versions.

Item 12 Paragraph 10(1)(b)

This item expands the operation of section 10 to include devices that transmit in the frequency range 30MHz to 6GHz. The new frequency ranges now align with the frequency ranges specified in the industry standards EN 62209-2 and IEC 62209-2.