

Consolidated comments from TE003's expert panel on EMC:

TE003 is the Australian Peak body National committee for EMC

ACMA consultation paper [Review of electromagnetic compatibility \(EMC\) regulatory arrangements / ACMA](#)

14th December 2023

- > **Question 1.** We are proposing to expand the range of EMC standards that may be used by suppliers to demonstrate compliance. This is anticipated to reduce barriers to trade, compliance costs and time to market. Do you have any comments on the proposal to reference all the EMC harmonised standards for emission under Directive 2014/30/EU in the ACMA's EMC regulatory arrangements?

We highly recommend that the current list of EMC Standards maintained by ACMA shall continue. Standards be added per need basis instead of opening a large list of EU standards. The relevance may be lost and may give rise to incorrect or inappropriate standards referred to declare compliance. Many a times a Lab also cannot advise on choosing the right standard as it can be an interpretation issue.

If ACMA refers the EU OJ listed standards, why do Standards Australia need to prepare and publish AS/NZS standards? The AS/NZS standards will lose complete significance of its existence.

EU OJ listed standards are not always a direct adoption of the IEC CISPR standard, CENELEC has a process to review and adopt the IEC CISPR standards and publish their own EN standard.

These standards are not subjected to Australian input (at IEC/ISO/CENELEC level or TE-003 directly).

EN 301 489 series are EMC standards for Radio equipment like WiFi, Bluetooth, LTE, etc. Many manufacturers are using this report to claim Australian Compliance under CISPR 32, CISPR 14, CISPR 15.

If referencing EU standards directly, then why not immunity requirements ?

For CISPR11-based standards, we need to maintain the current remark on the ACMA website, which is: "The 900 ISM band for Australia is 915–928 MHz, not 902–928 MHz as shown in the standard. 900 MHz ISM devices operating outside 915–928 MHz cannot be used in Australia."

This remark would need to also be included with other standards that reference CISPR11, such as the EN55011, EN50121 series and EN61326 series, just to name a few.

- > **Question 2.** Modern vehicles are increasingly embedded with and reliant on advanced electronic and safety systems. Do you have any comments on whether the current EMC regulatory arrangements for managing EMC risks for vehicles, including electric vehicles, are effective?

No. The risks are huge for such vehicles especially without immunity tests requirements. While ACMA exempts any requirements for vehicles handled by the FCAI members, there are many electric vehicle accessories with varying features, chargers, non-road vehicles like e-scooters, etc are already in the market without adequate EMC assessment. CISPR 12, CISPR 25, CISPR 36, UN ECE Reg 10 like standards needs more considerations to address such vehicles and its accessories. There are big variations in the type of charging stations and similar systems already in the Australian market

All countries who have adopted the E-mark UN regulations require both emissions and immunity /transients except in Australia. So, there is a high risk of low-quality products dumping and compromising safety of passengers.

During the early days of cars having electronic ignitions, ABS, electronic central locking etc there have been many cases of cars parked/driven close to the mobile towers would malfunction. Technology has improved and the EMC immunity has been hardened by car manufacturers sensing a potential lack of safety in such environments.

But for after-market products/accessories, these may remain untested for immunity hence safety compromised.

Similarly, there are many other safety critical products used in households where EMC immunity is very crucial. There are many safety standards which include EMC requirements for a reason. Due to malfunctions in some critical applications of products caused by interference. ACMA needs to reconsider this to introduce Immunity requirements for function critical products. Eg. Treadmills, automatic and semi-automatic power tools, etc.

Some of the standards listed in the ACMA EMC standards list (approx. from serial number 8 to 59) like EN 62040-2 (UPS), EN60669-2-1 (electronic switches), Arc Welding, switching & control gear, power drives, Telecom Network equipment, agriculture machinery, motor vehicles and accessories, EV charging systems, etc : Where a standard specifies immunity, harmonics and flicker, these tests are not required by the ACMA.

- > **Question 3.** Do you have any comments on the options to exclude specified low-powered inductive power transfer devices such as wireless chargers for phones, electronic wearables and electric toothbrushes from the definition of a high-risk device?

While some products can be classified as medium-risk (not Low-risk), there are products with varying or high power levels like cordless kettles. The number of WPT devices has increased multi-fold in households. It is better to leave them as Level 3 until there is sufficient knowledge of their EMC performance. The types and categories and their varieties are quite large and hence difficult to put them all into a single medium or low risk category.

- > **Question 4.** Do you have any comments on our proposal to lower the compliance level of certain household devices? Are there any other devices that we have not identified, where we should consider lowering the compliance level due to their low risk of causing interference? If so, please specify the types of devices and why their compliance level should be changed, including any common characteristics that cause these devices to pose a low risk of interference.

We do not support the proposal of lowering the compliance level for certain household devices from medium-risk to low-risk.

RCM approval especially ACMA RCM is taken as the easiest of the approvals in the world. Many claim that there is nothing to be done other than just completing the SDoC document.

It is surprising many a times that many importers don't even know that an RCM process exists. They think it has a CE mark so nothing more required. On top of such leniency, there is no Surveillance process or audit of products on the shelf or manufacturer/importers compliance folders.

How does ACMA know or determine that the products coming into Australia are compliant and safe ?

Suggest ACMA conduct RCM awareness programs, surveillance / audits, and strongly suggest to have a committee setup and have a yearly meeting to discuss various inputs from stakeholders involved in Product compliance.

One suggestion from a member was to introduce Customs checks at the time of imports to ensure the product has relevant documents showing compliance.

The proliferation of electronic products/gadgets in any household have doubled or tripled (rather exploded in numbers). CISPR is seriously discussing this topic in conjunction with changing the EMC limits due to its cumulative effects.

Within CISPR there are on-going discussions about protection distances and whether the current limits are still adequate. The current limits are based on a 10m protection distance, however with the increase in higher density housing (ie, lots of apartment buildings) and an increase in the number of devices, the protection distance is likely to be less than 10m and thus limits may need to be tightened accordingly. While that discussion is on-going and unlikely to be resolved in the short-term,

Answering this question, NO until a surveillance program is strong, lowering the compliance requirements makes no sense.

> **Question 5.** Do you have any comments on the categorisation of battery-powered devices as low-risk devices?

Current definition of battery-powered device means a device that is not capable of being connected, directly or indirectly, to an external power supply.

The original intention of classifying battery powered devices as Low-risk was for simple toys, devices that do not have a microprocessor, etc.

But now high-tech microprocessor-based battery powered devices are available and cannot be categorised as low-risk devices.

Where there are multiple variants of a product or a family of models, guidance should be provided to manufacturer/importer/distributor to determine compliance on the worst case or representative model and justify compliance on all its subset variants. This will need more discussion.

Please note that “EN 303 417 - Wireless power transmission using technologies other than radio frequency beam in the 19 - 21 kHz, 59 - 61 kHz, 79 - 90 kHz, 100 - 300 kHz, 6 765 - 6 795 kHz ranges; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU is EU version of standard” a current applicable standard for WPT.