International Amateur Radio Union - Region 1
EMC Committee

c/o Thilo Kootz, DL9KCE - Chairman
Lindenallee 4 – 34225 Baunatal - Germany
Tel: +49 561 9498840 Fax: +49 561 9498850 eMail: TKootz@gmx.de

CONFIDENTIAL

To
EMC Committee Region 1
Region 1 EC
IARU IS

Report of the CISPR conference held in Stresa, Italy on 21st September to 2nd October 2015

Introduction

CISPR conferences are the main playground where international EMC standardization is discussed. In different subcommittees (SCs), different product groups are reflected. Usually members only attend the SCs which they are (their company is) interested in, but as amateurs we have to face the situation that every device could potentially be a harmful interferer.

The involved amateurs are Christian Verholt, OZ8CY, the IARU EMC Advisor, Thilo Kootz, DL9KCE, IARU EMC Coordinator and Jan Janssen, PA0JMG. We have partitioned our work as follows...

EMC WORK repartition 2015

Committee / WG	Responsible participant	Remarks
CISPR S	OZ8CY	IARU EMC advisor job
CISPR A	PA0JMG	Measurement methods
CISPR B	DL9KCE	Inverters and ISM
CISPR D	None	Car emissions
CISPR F	DL9KCE	Lamps and luminaires
CISPR H	DL9KCE	Interference models/protection of Radio Services
CISPR I	OZ8CY	TV/Radio equipment, MME
CENELEC TC210	DL9KCE	EU EMC TC
CENELEC TC210 WG11	DL9KCE	PLT, EN 50561-x
ETSI/ERM EMC	DL1KRT	General ETSI EMC
ETSI/ERM_TG26	N.N.	EN 301 489 part 1 and part 15
ETSI/ERM_TG28	N.N.	SRDs

Please note, that this report contains information only on my (DL9KCE) CISPR committees, which I visited during the conference. Additional reports (OZ8CY, PA0JMG) will follow or are included as attachment.

CISPR/H plenary

On the completion of generic emission standards it was decided to transfer the radiated measurements below 30 MHz to the next maintenance cycle and to issue a DC to get the input from

NCs on the issue. The DC ports will be discussed in this maintenance cycle in WG1 during the interim meeting in January 2016. But the decision to include them also into IEC 61000-6-4 was taken during this plenary. Furthermore a discussion will follow to reduce the line length to be connected to a DC port from now 30 m to hopefully 3 m for omitting the measurements on this port. An input paper on the issue has been requested from IARU on this issue.

CISPR/H/WG1

The meeting addressed comments on 61000-6-3 and -4. Due to time constraints comments on CISPR 16-4-4 was shifted to the interim meeting in January 2016. AC and DC ports are only addressed in the generics as input ports. Output ports are transferred to the next maintenance cycle. This means that a pure DC output port, for example in a AC/DC converter, does not need to be measured at this time, for objects brought onto the market against the generics standards. The same is true for AC output ports, as e.g. can be found in semiconductor power converters (SPC), such as photovoltaic converters, but they shall be tested against the product standard CISPR 11 anyway. The borderline between class A and class B products is based on whether a broadcast receiver can be expected within 10m of the EUT or not. The first leads to class B, the latter to class A. This definition is a bit different than in other product standards, where class B stands for a residential and class A for an industrial or commercial environment. It was decided, after a heavy discussion to broaden the definition of location from broadcast only to radio reception in general.
We also included DC limits into 61000-6-4 by making the now informative annex normative for the next edition.

CISPR/F/WG1/TF IPT

Inductive Power Transfer (IPT) is a hot topic in all product committees in CISPR. IARU commented on the way CISPR/F addresses IPT in CISPR 14 by just adopting the requirements for induction cookers to also apply for any kind of IPT. The powers are so small that industry can live with the already existing limits for inductive cooking devices. IARU's main argument is that IPT equipment will be more dense in residential areas than induction cookers, which are likely to have a maximum density of one unit per household. This unit is furthermore in operation only a small portion of time during the day. IARU advised that CISPR/F shall ask CISPR/H on validation of the limits for IPT. IARU's comments in this matter were noted, but passed to CISPR/F plenary for decision.

CISPR/F plenary

My request to validate the limits from induction cooking devices also to be used for IPT in CISPR/H was declined. This is not in line with CISPR policy. IARU shall consider a formal request to steering committee. IARU has currently no further issues with CISPR 15 after having all LEDs with requirements in the next edition and after also fluorescent tube replacement LEDs are caught. It was noted during the meeting, that the new LED technology made a real impact on the standard, and that if a new lighting technology should ever appear again, it needs to be assessed just as any other common technology. This makes CISPR 15 future proof and an LED loophole cannot appear again. There were no issues with the CISPR 14 series in the plenary.

CISPR/F/WG2

The working group went through comments to F/663 for the full revision of CISPR 15 to become Ed. 9. IARU had some comments, which were mostly accepted, but are of minor interest. The Federal Network Agency reported on measurements to compare the CDN method against the 10 m SAC measurement. There is a clear tendency that the CDN method is easier to pass, especially if the EUT is small.

CISPR plenary

I gave a speech on behalf of IARU and listed the most important issues in about 10 minutes. See the attachment with my slides. Not expecting a vivid discussion, we had one for 30 minutes. Firstly the chairman of CISPR/I was not happy to include plasma TV requirements in CISPR 32 despite a decision from 2012 to do so. He and most NCs find it unnecessary since no manufacturer produces plasma TVs anymore and they disappear from the market. The second discussion was on my observation that SC F borrowed limits from induction cookers to be used in IPT. A representative from Philips formally requested that the plenary shall make a decision if or if not CISPR/H must validate

those limits. The chairman ignored this request, leaving the decision to a later meeting of the steering committee.

CISPR/B plenary

Again I gave a short speech on behalf of IARU. Slides are in the attachment. The issue with the limits for photovoltaic inverters in CISPR 11 Edition 6, where they do not appear as possible subject to change after validation by CISPR/H was more a formality to have this fact minuted in a plenary. But some NCs commented on this anyway, not understanding why an obvious error described and admitted by the main author and chairman cannot be corrected after final vote. The technical officer of IEC tried to explain the very complicated rules, but I think nobody really understood his explanation. I am very sure that next time he will find a way, if such an obvious error ever occurs again. The 2nd topic in my speech was on WPT and a strong request by IARU to use only special frequencies for this technology.

CISPR/B/WG1

A large portion of the meeting was used to resolve comments on B/627/CDV on the alternative test method in the FAR. IARU does not have an issue with this.
The rest of the time was used to discuss the contents of the next maintenance cycle. The first project is the inclusion of WPT in CISPR 11, which is already ongoing with great speed. The first public inquiry can be expected before the end of the year and resolved during the interim meetings of B/WG1 in April 2016. The second project is the extension of requirements to also cover SPCs. In detail the maintenance work will contain GCPCs other than those for photovoltaic power generating, chargers of dispersed DC cabling energy storage systems (e.g. batteries), DC output ports connected to energy storage systems (e.g. batteries, super capacitors), intermediate dc/dc converters for PV systems (e.g. Optimizers), active PV modules (i.e. PV cells fitted with an integrated optimizer), consideration of existing exemptions and additional exemptions.

CISPR/B/WG1/WPT

As could be expected, there was a very long debate on which frequencies shall be used or written in the draft standard. Some, as for myself and most of the car industry, want to see a concrete frequency band or some bands to be used for car charging. Most of the experiments take place on 85 ± 3 kHz. But others argue that it is not CISPR's role to discuss frequencies, but only EMC requirements, and these shall be formulated generally on all frequencies. It is role of the ITU-R to make a decision on a possible new ISM frequency for wireless changing. And indeed there is ongoing work in WP1A, see attachment. It was finally decided to continue with an approach for all frequencies to be safeguarded.

CISPR/B/WG2

IARU had inserted many comments on the three technical reports of high voltage power lines CISPR 18-1, 18-2 and 18-3. Most of the comments were on the fact, that the report almost on every page talks about the protection of broadcast and television, which of course is not in line with CISPR policy. I requested this to be changed in safeguarding radio reception in general. This was accepted. I also requested to have the protection field strength for amateur radio and HF broadcast listed in an informative annex, where you can find only information on LW and MW broadcast today. This was accepted and tasked on me.

vy 73 Thilo DL9KCE

EMC Committee Chairman IARU R1