**INTERNATIONAL ELECTROTECHNICAL COMMISSION SYSTEM FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)**

**TITLE: Compilation of comments and observations on ExTAG/491/CD Draft Decision Sheet - Clearances and creepage distances in pollution degree 2 environments**

**Circulated to: ExTAG – IECEx Testing and Assessment Group**

**INTRODUCTION**

This document is a compilation of comments, along with originator observations, on ExTAG/491/CD – Draft ExTAG Decision Sheet - Clearances and creepage distances in pollution degree 2 environments, it was prepared by the originator, BV DE, taking into account comments received on ExTAG/491/CD.

On the basis of comments received on this Draft DS the originator has advised that they wish the Draft DS be withdrawn.

***Please inform the Secretariat immediately of any omissions or errors at-***

***Christine Kane***

On behalf of Mr. Julien Gauthier

***Julien Gauthier***

***ExTAG Secretary***

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| **Address:****IECEx Secretariat** **Level 33 Australia Square****264 George Street** **Sydney NSW 2000****Australia****Web:** [**www.iecex.com**](file:///C%3A%5CUsers%5Cjugauthier%5CAppData%5CLocal%5CTemp%5CnotesC9812B%5Cwww.iecex.com) | **ExTAG Secretary****Mr Julien Gauthier****LCIE S.A.****33 Avenue du General Leclerc****92260 Fontenay-aux-Roses****FRANCE** **Tel: +33 1 40 95 55 26****Fax: +33 1 40 95 89 37****Email :** **julien.gauthier@fr.bureauveritas.com** |

| **ExCB/****ExTL** | **Clause/ Sub-clause** | **Paragraph Figure/****Table** | **Type of****comment****General/****technical/****editorial** | **COMMENTS** | **Proposed change** | **Observation****(to be completed by the originator)** |
| --- | --- | --- | --- | --- | --- | --- |
| **DEKRAEXAMDE** | **6.4** | **Table 2** | **ge** | The enhanced spacing requirements according to table 2 are mandatory for built-in equipment in PD2.Notes do not contain binding requirements, they are just for information.The PD2 grade is integrated in table 10, clause 13 of IEC 60079 15 Ed. 4 and can be used for non sparking low power equipment in such cases. | No changes to the standard are required. | **On the basis of comments received the Draft Ds is withdrawn** |
| **DEKRA Certification B.V.****NL** |  |  |  | The note only refers to were the values are derived from, not how and why.According to the IEC 60079-15, when clause 6.4 applies, the distances shall be in accordance with table 2, it does not state that IEC 60664-1 can be used as alternative. This is also inline with IEC 60079-7:2015, table 2. Were relaxations can be give, these are stated in the IEC 60079-15. | Withdraw this DS | On the basis of comments received the Draft Ds is withdrawn |
| **FME****GB** |  |  | **T** | Use of Table F.4 of IEC 60664-1 is not permitted by IEC 60079-15. The reference made in the proposed ExTAG DS to IEC 60664-1 in IEC 60079-15 occurs in a Note to Table 2. According to the IEC Directives, “Notes to tables shall not contain requirements or any information considered indispensable for the use of the document. Any requirements relating to the content of a table shall be given in the text, in a footnote to the table or as a paragraph within the table. Notes to tables need not be referred to.” And therefore this Note is not a permission to use other tables from IEC 60664-1.Previously IEC TC31 has made a decision not to accept spacings based on pollution degree.The proposed DS introduces a technical change to requirements of IEC 60079-15 which are not permitted by standard and which is outside the remit of ExTAG. | Do not publish this DS. | **On the basis of comments received the Draft Ds is withdrawn** |
| **FMG****US** |  |  | **te** | The reference made in the draft ExTAG Decision Sheet to IEC 60664-1 occurs in a Note to Table 2 of IEC 60079-15. According to Part 2 of the IEC Directives, “Notes to tables shall not contain requirements or any information considered indispensable for the use of the document……”Therefore, this Note cannot be used as the permission to apply other spacings tables from IEC 60664-1. The spacings of Table 2 of IEC 60079-15 are those that are required. This draft Decision Sheet proposes a technical change to requirements of IEC 60079-15. A Decision Sheet cannot change the existing requirements. Only an amendment can do that.However, based on the 2016 IEC TC31 decision (below), approval of such an amendment might encounter difficulty.**Decision 2106/06**TC 31 decides not to include the proposals of WG 32 into TC 31 documents that would allow manufacturer assignment and users selection of different pollution degrees and overvoltage categories.  | We do not support this draft Decision Sheet. | **On the basis of comments received the Draft Ds is withdrawn** |
| **IMQ****IT** | **Background** |  | T/E | Enclosure IP54 alone could not always be a mean to reduce pollution in an effective way when the equipment is subject to condensation or conductive pollution (only temporary possible) | After the second sentence suggest to add the following:“Means may be provided to reduce pollution at the insulation under consideration by effective use of enclosure, coating, encapsulation or hermetically sealing. Such means to reduce pollution may not be effective when the equipment is subject to condensation.” | On the basis of comments received the Draft Ds is withdrawn |
| **IMQ****IT** | Answer |  | T/E | As above | Suggest to add a second optionally answer after the first answer.“Equipment assemblies protected against pollution by the use of coating, improve the microenvironment of the parts under the protection, and also comply with the requirements of PD2, where IP54 would not be effective to avoid occasionally or long term conductive condensation, having regard with the actual installation condition and macro-environment.” | **On the basis of comments received the Draft Ds is withdrawn** |
| **IMQ****IT** | Additional information |  | E | IEC 60664-1 is a basic safety publication used by each TCs to provide requirement of each Product standard. Is not a Product standard itself. | Suggest to change last sentence as follows:“This is achieved by the compliance with the requirements for normal pertinent industrial equipment IEC standards, based on the general principle and requirements of IEC 60664-1” | **On the basis of comments received the Draft Ds is withdrawn** |
| **ITL****IL** | IEC 60079-15 – Ed. 4**6.4** |  | **Technical and editorial** | **The decision should not be limited to dinrail application**  | Such devices usually consist of one or more printed circuit boards in a functional metal frame which can be fixed on a din-rail or with in an final EUT enclosure.  | **On the basis of comments received the Draft Ds is withdrawn** |
| **KIWA****NL** | **6.4** | **2** | **T** | **Standard IEC 60079-15 is clear, the distances should be in compliance with table 2 cl. 6.4 (with exceptions mentioned in cl. 13). More information is available in IEC 60079-7 (2017) table 2 and Annex H. The values in table 2 are similar to the values in table 2 of IEC 60079-15.** | **Withdrawal of this DS** | **On the basis of comments received the Draft Ds is withdrawn** |
| **LOM****ES** |  |  | **General** | **LOM agrees with this document** | **None** | **On the basis of comments received the Draft Ds is withdrawn** |
| **NANIO CCVE (ExCB and ExTL)****RU**  |  |  | **General** | Why is it necessary to lower spacing requirements set out in IEC 60079-15 for built-in equipment in PD2 applications?If the correctness of the approach specified in IEC 60079-15 raises doubts, the TC 31 MT 60079-15 shall be contacted for making required changes to the standard.We do not support this ExTAG Decision Sheet. | We do not support this ExTAG Decision Sheet. | **On the basis of comments received the Draft Ds is withdrawn** |
| **RISE****SE** |  |  |  | We suggest the draft ExTAG Decision Sheet to be revised considering that the information according to Note 2 in Table 2, IEC 60079-15:2010, is intended to give some information on how the values in the table have been derived. Such information shall not be taken as normative requirements, unlike the values in the table which are normative requirements. |  | **On the basis of comments received the Draft Ds is withdrawn** |
| **SGS Baseefa****GB** |  |  |  | Table 10 was provided in order to cater for equipment such as the industrial power supply as, generally, equipment meeting IEC 61010-1 will also meet Table 10. However, because Table 10 was based on typical over-voltage categories, there remains a small chance that the power supply would not meet Table 10. This must, therefore be verified.The corresponding requirements in IEC 60079-7 for Ex ec are slightly more relaxed than the requirements in IEC 60079-15, from which they were derived, and it would only be necessary to check the segregation on that part of the power supply which was galvanically connected to the “mains” supply. |  | **On the basis of comments received the Draft Ds is withdrawn** |
| **SIQ****SI** |  |  |  | **Accepted** |  | **On the basis of comments received the Draft Ds is withdrawn** |
| **TC/****SC31G-****MKaiser** | Answer |  | Ge/te | Ex TAG Decisions shall not alter requirements of a standard! 6.4.1 of 60079-15 clearly requires the separations of Table 2 to be applied and specifies the exclusions.Clause 13 details the conditions for “Low Power Apparatus” with the restriction to Pollution degree 2 allowing smaller spacings down to industrial value for voltages less than 60V ac or 85V dc, provided that transient voltages are limited. For voltages of 90 V and above Table 10 specifies the required separations for such equipment.  | **Reject the answer given.**The correct answer would be:YES: The separations of Table 2 as required by 6.4.1, with the exclusions given, need to be applied to nA equipment. Clause 13 defines less stringent separation requirements for “low power” equipment restricted to installation in pollution degree 2 environments and with reduced overvoltages. | **On the basis of comments received the Draft Ds is withdrawn** |
| **TIIS****JP** | **6.4** | **Table2** | **General** | **Not accepted.** **The requirements of Table 2 in Cl.6.4 of IEC 60079-15-Ed.4 should be mandatory even under the conditions described in the Draft DS.** | **Not accepted** | **On the basis of comments received the Draft Ds is withdrawn** |
| **UL****USA** | **answer** |  | **General** | This draft IECEx DS would change the requirements of IEC 60079-15:2010. Note 2 of Table 2 provides a reference to the source standard from which the values in the table were derived. The Note does not permit the use of the source document in place of Table 2 of 60079-15. | Withdraw this proposed DS | **On the basis of comments received the Draft Ds is withdrawn** |
| **UL do Brasil****BR** |  |  |  | ULBR agrees on the proposed DS. |  | **On the basis of comments received the Draft Ds is withdrawn** |