**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/720/CD** **Draft ExTAG Decision Sheet – Tightening torque values of torque test for Ex blanking elements and Ex thread adapters**

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

**INTRODUCTION**

This document contains the compilation of comments, as well as observations, from the originator, CCCMT, CN, on ExTAG/720/CD Draft ExTAG Decision Sheet – Tightening torque values of torque test for Ex blanking elements and Ex thread adapters.

As a result of comments received, and considered, the originator prepared a further revised Draft Decision Sheet ExTAG/720A/CD Draft ExTAG Decision Sheet – Tightening torque values of torque test for Ex blanking elements and Ex thread adapters

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

***Christine***

**ExTAG Secretariat**

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| **ExCB/****ExTL** | **Clause/ Sub-clause** | **Paragraph Figure/****Table** | **Type of****comment****General/****technical/****editorial** | **COMMENTS** | **Proposed change** | **Observation****(to be completed by the originator)** |
| --- | --- | --- | --- | --- | --- | --- |
| **BIS (applicant ExCB)****IN** |  |  | **General** | **No comments** |  | **Noted** |
| **CNEX-Global BV****NL** | **-** | **-** | **te** | **For any thread size referenced in table C.1, the torque to be applied is the torque stated for the actual thread size in table C.1****Common practice for intermediate thread sizes is, the torque for the next larger thread size shall be applied.****This is also in line with the practice used for NPT threading in Table C.2, where the torque to be applied (for 1’’ NPT) is the torque specified for the larger NPT thread size (1.5 ‘’ NPT).****The example for thread size 22 would be similar: use the torque for thread size 25.**  | **Withdraw DS, because the standard practice is clear in what to do.****Furthermore,** **the standard text does not allow the interpolation between thread sizes, and** **if this DS would be accepted, this DS cannot be declared retrospectively for:****‘– projects commenced prior to publication of the DS’** | **Partly accepted.****We also agree with the common practice using the torque of the larger thread size for interpolation between thread sizes.****However, there is no clear description of the standard text which does not allow the interpolation between thread sizes.****The last paragraph will be revised accordingly.** |
| **DEK****NL** |  |  | **ge** | **Similar tables are in several standards. The question is just an example how to apply such tables.****We think the general answer is: when interpolation is not permitted by the standard then it is not permitted and the next value shall be taken.****When the comments on this draft DS does not show that different ExCBs/ExTLs have different views then withdraw this sheet****When the comments on this draft DS show that different ExCBs/ExTLs have different views then revise the sheet to a general one. We do not want a DS for just this table and standard since publication will solve only the unclarity for this one but will emphasize the same unclarity for other tables. This is an unwanted outcome and may result in many requests for DSs per table per standard.** | **Withdraw this sheet****or****Revise this sheet, make it applicable to all standards with such tables** | **Partly accepted.****We will revise this draft DS accordingly.****However,we consider this matter as a draft DS mainly based on the IEC 60079-0, Ed 7 – 26.1 which could provide a route for ExCBs/ExTLs to do as proposed with appropriate justification.** |
| **DNV** Product Assurance ASNO |  |  |  | **We agree with the Draft Decision Sheet** |  | **Noted** |
| **FMG****US** |  |  | **te** | **The proposed answer actually changes the published requirement. This is not permitted in a Decision Sheet.****IEC 60079-0, Ed 7 – 26.1 could provide a route for an Ex CB to do as proposed with appropriate justification. It would be worth highlighting this reference.****Suggest a proposal for a change as described be made for IEC ‑60079‑1, Ed 8 (now in preparation)****On “The DS shall be applicable to:”, add “active” in front of projects as otherwise it applies to projects commenced prior to the publication of the DS; and this implies all projects since the inception of the Scheme. We are not sure how an ExCB would apply this retroactively to projects dating back as early as 2003. Yes, we realize the “The DS shall be applicable to:”, was copied exactly from OD-035, but the text there is also flawed and needs to be corrected.****Also on “The DS shall be applicable to:”, decide whether the second or third bullet is to be applied, as the first option includes the second.** | **Revise the draft DS taking into account these comments.** | **Accepted in principle.****We will revise this draft DS accordingly.****We also suggest that this draft DS will be a proposal for IEC 60079‑1, Ed 8 (now in preparation).** |
| **FTZU****CZ** |  |  | **G** | **The draft DS appears to modify, not clarify, the requirements of the IEC 60079-1 standard.** **This is not the intention of Decision Sheet.****The IEC MT 60079-1 is the responsible authority to implement changes to the IEC 60079-1 standard.**  | **None, the DS is proposed to be rejected.** | **Partly accepted.****It seems that this draft DS is just a clarification to the IEC 60079-1 standard.****However, if it is considered to be an amendment or change to IEC60079-1,this matter shall be forwarded to the IEC MT 60079-1.** |
| **ITS (ExTL)****IN** |  |  | **General** | **No comments** |  | **Noted** |
| **KLCS****(ExCB & ExTL)****IN** |  |  | **General** | **No comments** |  | **Noted** |
| **KOSHA****KR** | **IEC 60079-1:2014****IEC 60079-1:207** | **C.3.3.1****C.3.4.1****Table C.1** | **General** | **We disagree with this proposed DS. Since the type tests must be carried out under the most stringent conditions, the tightening torque values for thread size 22 should apply to those for thread size 25.** |  | **Partly accepted.****We will revise this draft DS accordingly.** |
| **LCIE****FR** |  |  | **TE** | **We believe that it would be better to consider the torque value required for the next above thread size declared in the table.****The graph plotted using the values in Table C.1 does not provide a perfect linear curve.****The equation of the resulting linear trendline can be notably affected by whether or not the thread sizes below 16 mm are taken into account when plotting the graph. This may result in different tightening torques from one ExTL/ExCB to another for thread sizes not specified in the table.** | **The answer should be modified as follows:****The tightening torque value to be considered in the Table C.1 for a thread size not specified in the Table C.1 is that required for the next above thread size.** | **Partly accepted.****We also agree that the tightening torque value to be considered in the Table C.1 for a thread size not specified in the Table C.1 is that required for the next above thread size.****However,whether or not the thread sizes below 16 mm are taken into account when plotting the graph has nothing to do with the gragh plotted since the slop of the interpolation between thread sizes can be changed according to the relevant thread sizes and torques.****We will revise this draft DS accordingly.** |
| **MASCZA** |  |  |  | **MASC in support of ExTAG/720/CD** |  | **Noted** |
| **NANIO CCVE (RU)****ExCB/****ExTL** |  |  | **General** | **We support DS ExTAG/720/CD with the following comment. As projects commenced prior to publication of the DS could be on its final stage, we propose to exclude the option “– projects commenced prior to publication of the DS” and use another wording of the last paragraph.** | **To state the last paragraph as follows:** **« The DS shall be applicable to:– all new issues (revisions) of the certificates issued prior to the publication of this DS and– new certifications (Issue No. 0) and their subsequent revisions.»** | **Accepted in principle.****The last paragraph will be revised accordingly.** |
| **NEPSI****CN** |  |  | **G** | **We support the draft ExTAG decision sheet in principle.** | **Suggest to simplify the ANSWER as follows:****The tightening torque values for sizes other than those specified in Table C.1 of IEC 60079-1 may be determined from a graph plotted using these values.** | **Accepted in principle.****The answer paragraph will be revised accordingly.** |
| **PTB,** **DE** | **C.3.3.1****C.3.4.1****Table C.1** |  | **Technical** | **Question:****How to determine the tightening torque values for other thread sizes other than those specified in Table C.1?** | **Answer to question:****I agree with this new Draft DS.** | **Noted** |
| **QPS****CA** | **-** | **-** | **General** | **Both extrapolation methods and selecting the next highest torque value are acceptable**  | **Include both options in the DS.** | **Noted** |
| **QPS****CA** | **-** | **-** | **General** | **A graph is not required to extrapolate data from an intermediate value in a table** | **“**the tightening value of other thread sizes may be linearly extrapolated from Table C.1” | **Accepted in principle.****The two descriptions have the same meaning just according to Table 16 of IEC60079-0:2017.** |
| **Simtars****AU** |  |  |  | **No comments from Simtars.** |  | **Noted** |
| **TC31 MT60079-1** |  | **Table C.1** | **ge** | **Linear interpolation of Table C.1 values for intermediate sizes is permitted.** |  | **Noted** |
| **TIIS****JP** | **Answer:** | **–** | **Te** | **Unlike Table 16 of IEC 60079-0, Table C.1 of IEC 60079-1 contains no statement allowing interpolation, therefore, viewpoint 2 is not permitted.****It is unreasonable to apply the interpolation method in Table 16 to other tables, unless it is also allowed to be applied to all similar tables.** | **Modify answer as follows:****In case of Table C.1 of IEC 60079-1, interpolation is not permitted.** **The torque value of the larger thread size shall be used.** | **Partly accepted.****We will revise this draft DS accordingly.** |
| **TIIS****JP** | **How the proposed draft decision sheet affects existing certified products :** | **–** | **Te** | **Please re-consider the effect of the DS if the answer be changed to that of viewpoint 1.** |  | **Partly accepted.****We will revise this draft DS accordingly.** |
| **TIIS****JP** | **The DS shall be applicable to:** | **–** | **Te** | **Item 2 and item 3 seem to be exclusive.** | **Please consider the DS shall be applied to all certifications issued after its publication or only for the new certifications (Issue No. 0) and their subsequent revisions.** | **Accepted in principle.****The last paragraph will be revised accordingly.** |
| **ULBR** |  | **Answer** | **Technical** | **Agree, since this position is consistent with Table 16 in IEC 60079-0.****Suggest providing either guidance on how the graph plotted from these values should be generated or the equation to be used. Alternatively, indicate that linear interpolation between table values is permitted (which, as we understand, is the position of MT 60079-1).** | **Add this additional sentence at the end of the ExTAG DS answer: “Linear interpolation between table values is also permitted.”** | **Accepted in principle.****We will revise this draft DS accordingly.** |
| **ULBR** |  | **Applicability** | **General** | **Under “The DS shall be applicable to:,” a choice must be made.** | **Apply to all certifications issued after its publication.**  | **Accepted in principle.****The last paragraph will be revised accordingly.** |
| **UL LLC** |  | **Answer** | **Technical** | **Agree, since this position is consistent with Table 16 in IEC 60079-0.****Suggest providing either guidance on how the graph plotted from these values should be generated or the equation to be used. Alternatively, indicate that linear interpolation between table values is permitted (which, as we understand, is the position of MT 60079-1).** | **Add this additional sentence at the end of the ExTAG DS answer: “Linear interpolation between table values is also permitted.”** | **Accepted in principle.****We will revise this draft DS accordingly.** |
| **UL LLC** |  | **Applicability** | **General** | **Under “The DS shall be applicable to:,” a choice must be made.** | **Apply to all certifications issued after its publication.**  | **Accepted in principle.****The last paragraph will be revised accordingly.** |