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

**Title: Compilation of Comments on ExTAG/637/CD – Draft ExTAG Overpressure test for flameproof enclosures**

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

**INTRODUCTION**

This document contains the Compilation of Comments and Observations from the Originator, CNEX-Global BV, on ExTAG/637/CD – Draft ExTAG Decision Sheet - Overpressure test for flameproof enclosures.

As a result of comments received, and considered, Decision Sheet ExTAG DS 2021/003 has now been published.

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

***Christine Kane***

|  |
| --- |
| **Address:****IECEx Secretariat****Level 33 Australia Square****264 George Street****Sydney NSW 2000****Australia****Web:** [**www.iecex.com**](file:///C%3A%5CUsers%5Cchristine.kane%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CTemporary%20Internet%20Files%5Cchristine.kane%5CAppData%5CLocal%5CMicrosoft%5CWindows%5Cchristine.kane%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CTemporary%20Internet%20Files%5CContent.Outlook%5CAppData%5CLocal%5CUsers%5Chorn02%5CAppData%5CLocal%5Cchristine.kane%5CAppData%5CLocal%5CMicrosoft%5Cchristine.kane%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CTemporary%20Internet%20Files%5CChristine.Kane%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CTemporary%20Internet%20Files%5CAppData%5CLocal%5Cjugauthier%5CAppData%5CLocal%5CTemp%5CnotesC9812B%5Cwww.iecex.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)** |
| --- | --- | --- | --- | --- | --- | --- |
| **BIS****IN****In consultation with****Intertek India Private Limited, Karandikar Laboratories Pvt. Ltd., and KL Certification Services.** |  |  |  | After a consultation with members of the National forum and ExCBs/ExTLs from India participating in ExTAG, it is hereby submitted that we agree with the suggested approach of ExTAG/637/CD document and have no comments on it. |  | **Thank you**  |
| **CQMCN** |  |  |  | **We support the ExTAG\_637\_CD** |  | **Thank you** |
| **DEKRA / BVS****DE** |  |  | General | We don´t see the need for such a clarification sheet because that is completely covered by the wording and sense of IEC 60079-1. | Decision sheet is not necessary. | **Noted** |
| **DNV****NO** |  |  |  | **We agree in this decision sheet.** |  | **Thank you** |
| **Eurofins****CML****GB** |  |  |  | CML agrees with this decision sheet |  | **Thank you** |
| **ExTC****AU** |  |  | General | The result of the proposed ExTAG decision sheet is correct. But this should be obvious to any practitioner in Ex protection.Having a Decision Sheet to explain the obvious should be investigated – which IECEx TL or IECEx CB has not applied this Clause correctly?  | Decision sheet is not necessary to explain this obvious requirement. | **Noted** |
| **FME****GB** |  |  |  | We share the opinion circulated by Ex Testing and Certification (ExTC) that this Decision Sheet is not necessary. | Withdraw the draft Decision Sheet. This is not a problem that needs to be solved. | **Noted** |
| **FMG****US** |  |  | **ge** | The manufacturer and the ExTL need to agree on the process for the routine overpressure test. If a particular routine test is unusual in the way it is to be conducted, an assiduous ExTL would require that the process be documented and maintained as a Schedule Document so that the QAR can confirm the agreed process is being followed. The existing documents already provide appropriate guidance on the test.From IEC 60079-1: “*The individual parts of a flameproof enclosure (for example, cover and base) can be tested separately. The test conditions shall be such that the stresses are comparable to those to which these parts are exposed in the complete enclosure*.”Note that the standard does give the manufacturer / ExTL some flexibility by the use of the word “comparable”, specifically NOT using the word “identical”.From ISO/IEC 80079-34: ”*The individual parts of a flameproof enclosure (for example, cover and base) can be tested separately.*” | Withdraw the draft Decision Sheet. This is not a “problem” that needs to be solved.If it is considered that this is a “solution” that must be applied, we would suggest adding text:“The routine overpressure test procedure is expected to be documented and maintained as a Schedule Document so that the QAR can confirm the agreed process is being followed.” | **Noted** |
| **FTZU****CZ** |  |  | **g** | **This Draft DS says what is already given in the standard. Threads and fasteners are part of the overpressure type test (see clause 11.3).****Note:****There is mentioned clause 16.5 in the cell “clauses:”. This is a confusion information because this Draft DS contains information for type tests.**  | **This prepared Draft DS is not needed and can be removed.** | **Noted** |
| **GIG****PL** |  |  |  | **The requirement is self-evident and requires no additional explanation.** |  | **Noted** |
| **NANIO CCVE (RU)****ExCB/****ExTL** |  |  | **General** | We consider the ExTAG/637/CD draft Decision Sheet correct and support it. The requirements of Clause 15.2.1 of IEC 60079-1:2014 are obvious for the ExCBs and ExTLs and they understand them correctly, but it is necessary that the manufacturers who test flameproof enclosures in accordance with the requirements of IEC 60079-1: 2014 also correctly understand the requirements of this Clause and correctly test the enclosures. |  | **Thank you** |
| **NEPSI****CN** |  |  | **G** | **We support the draft decision sheet ExTAG/637/CD.** |  | **Thank you** |
| **NCC** | **15.2.1** |  | **G** | It is correct; however, this should be obvious to any ExCB/ExTL. |  | **Thank you** |
| **PTB****DE** | **15.2.1** **(16.5)** |  | **Technical** | **Question:****Is the reference to ‘the enclosure’ in clause 15.2.1 meant to include the individual enclosure parts, including the threaded holes for the enclosure fasteners and the threading on the enclosure fasteners?** | **Answer to question:****Yes, we support the Decision sheet ExTAG/637/CD and the answer to the question.** | **Thank you** |
| **QPSCA** |  |  |  | **QPS agrees with the proposed ExTAG DS and has no comments** |  | **Thank you** |
| **SGS Baseefa****GB** |  |  |  | **SGS Baseefa is in agreement with the entire document as presented. However, we wonder if there should be a reference to ISO/IEC 80079-34, where similar text also exists.****We should note that it is a matter for surveillance and audit that routine testing is being done correctly.** | **Add a statement after the answer:****This answer is fully compatible with the wording in ISO/IEC/80079-34 at A.3.5.1 which describes how routine testing should be assessed during QA audits.** | **Thank you****The proposed text was added as a note.** |
| **SIMTARS****AU** |  |  |  | **Simtars has no comments.** |  | **Thank you** |
| **SIQSI** |  |  |  | **We agree with draft.** |  | **Thank you** |
| **TC 31** |  |  | **GE** | **It is agreed that all parts that complete the Type of Protection are a factor in establishing compliance with the type and routine overpressure tests (e.g. cover, base, threaded fasteners, threaded holes). Specifically, these parts are each a determining factor in whether or not there is permanent deformation of the joints or damage to the enclosure.** | **None** | **Thank you** |
| **TIIS****JP** |  |  |  | **Withdraw the Decision Sheet because the contents of the proposed Decision Sheet are self-explanatory.****In the case where the DS is be published, the 2nd paragraph in the Answer should be modified as described in the "Proposed change".** | **(In the case that the DS will be published)****Therefore, overpressure tests on flameproof enclosures must be done in a way that ensures that also threaded holes for enclosure fasteners are subjected to the mechanical stress caused by the overpressure test. The mechanical stress on the fasteners shall not be reduced by the addition of auxiliary supporting parts, welding, etc.** | **Thank you****The essence of the proposed text was incorporated** |
| **TUV SUD PS****DE** | **15.2.1 (16.5)** | **Figure 3** | **General** | **We agree with the decision.** | **None.** | **Thank you** |
| **UL-****USA** |  | **all** | **Technical** | **We agree with this DS. We think it could be further improved by clarifying that this draft DS applies to the acceptance criteria for the overpressure test detailed in 15.2.1, along with the acceptance criteria for the routine overpressure test detailed in 16.5.  This clarity could be obtained by these revisions to the draft** | 1. **Remove the parenthesis from around the reference to 16.5 in the “Clauses” cell.**
2. **Under the “Background” heading, add a new second paragraph that reads, “****16.5 of IEC 60079-1:2014 states, in part: The routine tests are considered satisfactory if a) the enclosure withstands the pressure without suffering permanent deformation of the joints or damage to the enclosure, …”**
3. **Under the “Question” heading, revise the text to read, “Is the reference to ‘the enclosure’ in clause 15.2.1 and 16.5 meant to include the individual enclosure parts, including the threaded holes for the enclosure fasteners and the threading on the enclosure fasteners?"**
4. **Under the “Answer” heading, revise the text to read, “Yes. The reference to ‘the enclosure’ in clause 15.2.1 and 16.5 is meant to include…”**
 | **Thank you****Proposed text was included** |
| **UL-USA** |  | **all** | **Technical** | **Add Informative Note to provide additional explanation** | **It is recommended that a Note be added beneath the last paragraph of the “Answer” that reads, “****NOTE As there are no requirements in the standard for the size, shape, placement or number of threaded fasteners used to secure a cover, it is critical to stress the fasteners and the threaded holes which they engage during over pressure testing to determine that there is no enlargement of flameproof gaps.”** | **Thank you** **Proposed text was included** |
| **ULD****DK** |  | **All** | **Technical** | **We support this draft DS. However we would like to improve it further by clarifying that it applies to the acceptance criteria for the overpressure test (cl. 15.2.1) and the acceptance criteria for the routine overpressure test (cl. 16.5).**  | 1. **Remove the parenthesis from around the reference to 16.5 in the “Clauses” cell.**
2. **Under the “Background” heading, add a new second paragraph that reads, “16.5 of IEC 60079-1:2014 states, in part: The routine tests are considered satisfactory if a) the enclosure withstands the pressure without suffering permanent deformation of the joints or damage to the enclosure, …”**
3. **Under the “Question” heading, revise the text to read, “Is the reference to ‘the enclosure’ in clause 15.2.1 and 16.5 meant to include the individual enclosure parts, including the threaded holes for the enclosure fasteners and the threading on the enclosure fasteners?"**
4. **Under the “Answer” heading, revise the text to read, “Yes. The reference to ‘the enclosure’ in clause 15.2.1 and 16.5 is meant to include…”**
 | **Thank you** **Proposed text was included** |