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

**TITLE: Compilation of comments on - ExTAG/635/CD – Draft ExTAG Decision Sheet -** **Field modular approach for Ex Equipment**

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

**INTRODUCTION**

This document contains the compilation of comments, as well as observations, from the originators UL/PTB, received on ExTAG/635/CD – Draft ExTAG Decision Sheet - Field modular approach for Ex Equipment

As a result of comments received and considered, the originator prepared a further revised Draft Decision Sheet ExTAG/635A/CD – Draft ExTAG Decision Sheet - Field modular approach for Ex Equipment for discussion during the ExTAG 2021 Remote Meeting.

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

***Christine Kane***

***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****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/635/CD document.** |  | **Noted** |
| **CQMCN** |  |  |  | **We support the ExTAG/635/CD.** | **We expect to make it clear that the Ex marking on the certificate shall be same as what described in Answer 3.**  | **Noted** |
| **DEKRA / BVS****DE** |  |  | General | We do not agree with the proposed DS due to formal reasons.It is not clear who will finally take over the overall responsibility (manufacturer, installer, end-user).In addition, the surveillance measures that apply to a manufacturer (QAR) do not apply to an installer or end-user. This can cause a quality problem if an installer, for example, lacks the necessary know-how. |  | Accepted in Principle. Please see response to TC31. |
| **DNV GL Presafe** |  |  |  | **We disagree in the proposed TAG decision sheet based on the following:*** **The production of the equipment can in practice be set to the end user who is not subject to QAR.**
* **Assembly, final marking and final control will be set for users.**
* **Responsibility for the end product become unclear, as manufacturer do not have control of final product.**
* **Unclear how it is ensured that ExTAG 2006/002 and OD 017 are followed?**
* **It will not be possible to audit the manufacturer according to 80079-34 when no production is done at their location.**

**It is unclear who is responsible for preparing and storing documentation for the final product.** |  | Rejected. However, the DS has been substantially rewritten which may address many of your concerns. This is not considered to be production. It is very similar to normal installation steps, like putting a lid on a base, wiring up a device in acc. with manufacturer’s instructions is a well known and reproducible action that can be done in the field. ExTAG 2006/002 is addressing a different scenario and not considered applicable. No production occurs, only installation. The manufacturer remains responsible as if the product was completed in his facilities.  |
| **ExTC****AU** | Background | 1 | General | **Generally this approach is already in place where the manufacturer of the enclosure:**1. **produces the enclosure as an ‘Ex component’ that allows other manufacturers to incorporate in their own production line, using well established methods of incorporating Ex components to produce the complete Ex equipment**
2. **Produces the enclosure as an ‘Ex equipment’ with a set of optional items that may be incorporated and produce the final product and Ex code depending on the items incorporated**

**In the case of b), where the final product may not be sufficiently defined when the enclosure is made, the enclosure manufacturer uses authorized agents as part of their manufacturing function and under their control to produce the final product.** | This Decision Sheet is not necessary, as such an approach is already in place using current Ex certification techniques.The Decision sheet also does not address who the manufacturer can be – a consultant who puts together a design using Ex components and Ex certificates? Would this consultant be audited by an Ex CB using ISO 80079-34? | Noted, we appreciate that the proposed DS is in line with existing requirements, but feel that additional clarity is needed to ensure consistency among ExTAG members. |
| **FIDITAS****HR** | - | - | E | **We support Decision Sheet: ExTAG/622A/CD and have one comment:****IEC 60079 series do not ask marking of manufacturer’s address (it is additional requirement of EU ATEX Directive), and therefore not good example in the Answer 2, second bullet.** | Delete “Address” in the Answer 2, second bullet. Should be:* All basic markings required by the standard, e.g. Certificate No., Manufacturers’ name, etc.
 | Accepted: “Address” deleted.Q.2 & Q.3 deleted.  |
| **FMG****US** | Q1 |  | ge | **The scenario described by Question 1 is not precluded by the standards today. In fact, it is quite common for large equipment that simply cannot be shipped assembled. It is noted that the “Background” and “Question 1” do not seem to be well aligned.** | FMG supports Answer 1 to Question 1 of the DS as drafted but is not sure what value is provided by asking and answering the question. | Accepted in Principle. Q.1/A.1 kept and modified to align with background. Q.2 and Q.3 removed. |
| **FMG****US** | Q2/Q3 |  | ge | **The scenario described by Questions 2 & 3 is not currently addressed or permitted by the standards. A change to IEC 60079-0, and possibly other standards, would be required to implement the proposal. In accordance with OD-035, this is not permitted by a Decision Sheet. “Under no circumstances can an ExTAG Decision Sheet be used to modify or correct requirements specified in IEC or ISO/IEC Standards.”**  | Withdraw Questions 2 & 3 / Answers 2 & 3. | Accepted. |
| **FTZU****CZ** |  |  | G | **We agree with this draft ExTAG Decision Sheet.** |  | Noted |
| **KOSHA****KR****(in consultation with KATS, KTL and KGS** |  |  | GE | **Whether this approach technically be acceptable, Regal requirement such as country certification system could restrict that assembler allow to mark or to modify Ex product nameplate at filed area** | Add followings, With consideration of each country regulation, extra confirmation by Certification body verification or certificate could be needed | Rejected, as national differences are outside the scope of the decision sheet.  |
| **LCIE****FR** | General |  |  | **A dedicated AdHoc Group (ExTAGAdhocWG1) is dealing with modular concept. To avoid confusion and ensure consistency in the applicable IECEx document, this matter should be transferred for consideration to the AdHoc group.** |  | Accepted in Part. While the “modular concept” of Adhoc working group is understood to be different from this “Field modular approach” it is considered a viable solution to hand these topics over to the Adhoc WG in order to achieve a solution for Q.2 and Q.3.  |
| **LCIE****FR** | General |  |  | **The following points may need clarifications by the WG :*** **Are certified components (with their own marking) allowed?**

**If positive, shall they have an additional marking?*** **The document mentions “The parts are able to be assembled such that there is no need of measurement, repair work or testing”.**

**What about dielectric strength test required by IEC 60079-7 when modules are not Ex components?*** **What is “Cat No.” mentioned in the document?**
* **Can the modules be sent to the user at different points in time, and what about the year of manufacturing of the complete equipment?**
* **How is the traceability managed according to IEC 80079-34?**
 |  | Accepted in Part. These questions are to be discussed in the WG.  |
| **NANIO CCVE (RU)****ExCB/****ExTL** |  |  | **Technical** |  **In general, we agree with the document.****However, it is not clear from the explanation what types of explosion protection this decision applies to.****The example shows 2 types of explosion protection (d and e), and then the document adds another type of explosion protection "m".****In practice, there are still modules with protection "i", "q", " p " and others. Therefore, it is necessary to clarify that other types of explosion protection can be used, and not only those listed in this DS.** |  | Accepted in Principle. The DS was modified to clarify. |
| **NANIO CCVE (RU)****ExCB/****ExTL** |  |  | **Technical** | **When assessing compliance, the worst possible thermal scheme of the installation should be provided, taking into account the maximum possible number of modular devices installed and the maximum energy consumption of the installation.** |  | Accepted in Principle. DS reworded. |
| **NCC****BR** | 13, 29, 30 (IEC 60079-0)8.6 (IEC 80079-34) |  |  | **We agree.** |  | Noted |
| **QPS****CA** | - | - | General | **Current IECEx rules and operational documents do not seem to be designed to consider this type of certification option.****Particularly, neither the IECEx CB nor the manufacturer has any control over the final assembled product which is listed as certified.****I also fear that the DS is to vague that it could be appropriated by any manufacturer trying to avoid multiple or complex evaluations.** | Propose formation of ad hoc group to discuss impact of field modular approach to current IECEx rules and regulation in addition to limitations of existing standards. | Accepted in Principle. Q2 and Q3 will be referred to the AdHoc group.  |
| **SIMTARS****AU** |  |  |  | Simtars has no comments. |  | Noted |
| **TC 31** | **Q1** |  | **ge** | The scenario described by Question 1 is not precluded by the standards today. In fact, it is quite common for large equipment that simply cannot be shipped assembled. It is noted that the “Background” and “Question 1” do not seem to be well aligned.WG22 supports Answer 1 to Question 1 of the DS as drafted but is not sure what value is provided by the Question / Answer. A reference to OD-210 currently addressing modular constructions would be helpful. | Yes, a ~~this Field~~ Modular approach is documented in OD-210 and permitted when the manufacturer is able to demonstrate that all of the following conditions are met, as applicable:…… | Accepted in Part. Modifications made to Q1 And A1 to align with background.  |
| **TC 31** | **Q2 / Q3** |  | **ge** | The scenario described by Questions 2 and 3 is not currently addressed or permitted by the standards. A change to at least IEC 60079-0 would be required to implement the proposal. and this is not a permitted task for a Decision Sheet. Much of the proposed answers really address a “process” rather than a certification of a “product”. The product standard(s) may not be the best place to address this topic. | Withdraw Questions 2-3 / Answer 2‑3.Prepare a proposal for an amendment to OD-210 to better address this.Manufacturers would have hard time addressing the proposed process under a Type 5 Certification System as a number of the critical aspects would be out of their control, but they would still be responsible for continued compliance. For example:* Compromising of IS spacings during installation of modules.
* Compatibility of different revisions of base modules and functional modules.
* Confirming the correct Ex marking for the end product
 | Accepted in Principle. This was referred to the convenor of the OD210 ad-hoc. |
| **TIIS****JP** |  |  | **general** | We do not support the draft DS. The draft DS leads to allow users to finalize the marking of equipment. According to Cl. 28.3 in IEC 60079-0, it is Manufacturer who has responsibility for marking of equipment. We think the subjects in the draft DS should not be handled by issuing the DS, but by revising relevant standards (or issuing an OD, if appropriate). . | Withdraw the draft DS. | Reject. Please note comments from T31. |
| **TUN****DE** | **All** | All | **Ge** | We see the current draft as an approach, that isn’t in conjunction with the general requirements of IECEx Rule 01 and 02. The responsibility for the assembly lies only in the hand of the user and will not be surveilled by an ExCB. | Revise the whole ExTAG. | Reject. DS has been written to clarify.  |
| **ULD****DK** |  |  | **General** | ULD supports this draft Decision Sheet. |  | Noted |