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

**TITLE: Compilation of comments on ExTAG/606A/CD – Draft Revised ExTAG Decision Sheet – Identification of Ancillary Devices and Marking Identification**

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

**INTRODUCTION**

This document contains the compilation of comments received on *EXTAG/606A/CD Draft Revised ExTAG Decision Sheet – Identification of Ancillary Devices and Marking Identification* and is issued for consideration during the ExTAG 2020 Remote Meeting. A further version containing observations from the originator may follow.

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

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***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)** |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| **DEK**  **NL** | **All** | **All** | **ge** | We think this draft DS creates more confusion than clarity.  In addition: the DS intends to address items as specification and marking on assemblies. These topics are addressed by IEC TS 60079-46.  The approach in this sheet deviates from IEC TS 60079-46 where standardization should go for a uniform approach. | Withdraw this draft DS and ask the maintenance team of IEC TS 60079-46 to consider the questions given in this draft DS when working on the next edition of IEC (TS) 60079-46. |  |
| **EESF**  **FI** |  |  |  | **Q2 / Option b is preferred.**  A type certificate may have several optional ancillaries and listing all possible variations of markings may create a long list.  In addition, this is better suited for the Basic principle given on the first page: it makes it clear which part was assessed in the certification and which part have been previously certified as an equipment. |  |  |
| **EESF FI** | Q2 / Option b |  |  | Could it be clarified should / should not the ancillary equipment that have an Equipment certificate be listed on the certificate and to what extent (especially: are standard editions necessary)? |  |  |
| **EESF**  **FI** | Q2 / Option b |  |  | Could it be clarified that ancillaries that have an Equipment certificate, are not subject to ExTAG DS 2014/001 and thus Equipment that has been certified to older editions of the standards may be used without re-evaluation? | ExTAG DS 2014/001 is not applicable to previously certified ancillary equipment and do not need evaluation to the latest editions of standards. |  |
| **EESF FI** | Q2 / Option b |  |  | Could it be clarified if the manufacturer needs to have the types of protection of the ancillary equipment in their QAR? | The types of protection of the ancillary equipment do not need to be part of the manufacturer’s QAR. |  |
| **Eurofins**  **CML** |  |  |  | **Agree with option b)** |  |  |
| **Eurofins**  **CML** |  |  |  | **60079-46 has introduced confusion, perhaps also 60079-0 clause 29.6. Some manufacturers include Ex codes for attached items already certified as equipment, which is not necessary** | **For option a) require a note to be included in the certificate stating that all Ex codes of attached equipment are included in the overall coding for clarity** |  |
| **Eurofins**  **CML** |  |  |  | **For option a) the DS does not mention what standards should be included** | **If option a is agreed, then it should be clear that the standards of the equipment certified parts should not be included in the certificate. But standards for component parts should be included.** |  |
| **Eurofins**  **CML** |  |  |  | **For option b, IEC 60079-0 clause 29.6 can be referenced.** | **Please amend the DS to confirm that the codes associated with the standards used for the certification and testing of the equipment being certified should be included, along with codes of any incorporated component certified items. This clause does not apply to parts that are already fully approved but may be incorporated into the overall assembly** |  |
| **Eurofins**  **CML** |  |  |  | **Option a and b** | **A list of the auxiliary devices already certified (but not necessarily Ex components) can be included in the description or Annex to the certificate.** |  |
| **ExTC**  **AU** | Answer to Question 1 | Para 3 | Ge | The phrase “all possible Ex marking strings” may be interpreted as “all possible combinations of Ex marking codes” since a string in this context may be refer to a set of codes to form a string. If this is the case then a certificate with three different types of protection (eg Ex db eb ia I Mb) may have 6 unique marking strings, and one with 5 types (eg. Ex nA db eb ib [ia Ga] IIC T4 Gc) may have 120 unique marking strings each of which would be required to be specifically listed if this wording is to remain unchanged. | Revise answer to:  …all available marking codes based on the relevant protection types that are applied in the equipment.” |  |
| **ExTC**  **AU** | Question 1 and Answer | 4 | Ge | The Question 1 refers to “identification” in the equipment certificate and in certification drawings.  But the 4th para describes the equipment nameplate information. | Remove the 4th para. |  |
| **ExTC**  **AU** | Question 2 | 1 | Ge | The Question 2 refers to “marking”.  So this should refer to the marking applied on the equipment.  But the question also refers to “in an equipment certificate”, which has already been covered in the answer to Question 1 (2nd para and 3rd para already refer to the marking in an equipment certificate) | Revise question to:  “What marking is to be applied on the equipment?” |  |
| **ExTC**  **AU** | Answer to Question 2 | Option a | Ge | The reference to “Ex marking in an equipment certificate” is a part of the answer to Question 1. Remove from here | Revise answer to:  “Option a: The Ex marking string on the marking plate for the equipment, needs to include the protection methods of any (Component or Equipment certified) ancillary devices provided with the equipment. |  |
| **ExTC**  **AU** | Answer to Question 2 | Option b: | Ge | The reference to “Ex marking in an equipment certificate” is a part of the answer to Question 1. Remove from here | Revise answer to:  “Option b: The Ex marking string on the marking plate for the equipment, needs to include the protection methods of any Component certified (but not Equipment certified) ancillary devices provided with the equipment. |  |
| **FIDI HR** |  |  | **G** | **We support the Decision Sheet: ExTAG/606A/CD and no further comments** |  |  |
| **FME**  **GB** |  |  | **T** | We cannot comment on this draft DS without knowing what problem it is trying to resolve.  What is an ancillary device as far as Ex is concerned? This term is not used in the equipment standards.  This discusses ancillary equipment. A Zener barrier is ancillary to a piece of intrinsically safe apparatus. Is it this intention that we need to include the marking for Zener barriers on the I.S. apparatus? This would be a technical change to the standards.  If ancillary equipment is made by a third party and the Type of Protection is marked on the IECEX Certificate, does the QAN also need to state this type of protection? The Types of Protection listed in the IECEx CoC should align with the QAR scope for the holder of the certificate.  If the ancillary equipment is optional the requirement to ‘possible Ex marking strings’ could result in a long document. | Provide more details to enable constructive comments to be made.  Otherwise do not publish this DS. |  |
| **FMG**  **US** |  |  | ge | We find the draft to be quite confusing, especially with inconsistent use of terms and introduction of undefined terms. The concept of "ancillary devices" is particularly confusing as we already have "associated apparatus" and "Ex associated equipment" as 60079-0 defined terms. | Rewording to use defined terms would help. See re-write following with changes identified. |  |
| **FMG**  **US** |  |  | **ge** | If, as we understand, this DS was developed to address the situation with large motors, it would help if the DS said so. This would help separate the issue raised here for large motors from assemblies which are addressed by TC60079-46. | Add clarifying text to “Background”:  A typical example of such Ex Equipment would be an “eb” motor that includes an Ex Component “eb” terminal box, an Ex Equipment “ib” bearing temperature monitor, and an Ex Equipment “ib” vibration monitor.  See re-write following with changes identified.  PDF file attached.  (refer Annex A) |  |
| **ITL**  **IL** |  |  | **Technical** | **Option B will generate confusion and mismatch during installation. All information must always be available for the equipment and he ancillary at all times on all part and markings** | **Remove option b** |  |
| **NANIO CCVE (RU)**  **ExCB/**  **ExTL** |  | **Question 1** | **Technical** | The Answer to Question 1 does not really answer the Question: How is ancillary equipment to be identified in an equipment certificate and in certification drawings?  We suggest to replace the wording  *“All ancillary equipment that is used in/with the certified equipment shall be identified by manufacturer and model on the equipment certificate and in the certification drawings”* by the following text:  For all ancillary equipment used in certified equipment, the equipment certificate and certification drawings should include the lists of ancillary equipment with the indication of the model, Ex-marking, manufacturer, manufacturer's country, and the list of Ex-components used in certified equipment with the indication of the model, Ex-marking, manufacturer, manufacturer's country." |  |  |
|  |  |  |  | In the DS it is suggested "lumping together" all types of protection on the first page of the certificate, but not always all types of explosion protection of ancillary equipment must be specified in the Ex-marking of the certified equipment, for example, if certified self-regulating heating cables with the Ex-marking 1Ex db IIC T6 Gb, Extb IIIC T85oC Db are embedded inside the enclosure "d". It makes sense to specify the types of explosion protection of component accessories in certain cases, when, for example, ancillary equipment is placed in the certified equipment and is ultimately structurally and functionally integrated with it (for example, other ancillary equipment is installed in the enclosure of the final product). |  |  |
|  |  |  |  | We suggest to add the words “ for the equipment to be certified” to the last phrase of the Answer to Question 1:  The equipment nameplate shall show the correct Ex marking string for the equipment to be certified”  Otherwise, to adopt the following short wording for the Answer to Question 1:  **Answer**:  All ancillary equipment that is used in/with the certified equipment shall be identified by manufacturer, model and Ex-marking of ancillary equipment on the equipment certificate and in the certification drawings.  On the front page of the IECEx certificate, the Type of Protection field shall list all types of protection that are applied in the equipment, including the types of protection used in the ancillary devices. |  |  |
| **ExCB/**  **ExTL NANIO CCVE (RU** |  | **Question 2** | **Technical** | **Question 2**  We support Option B under reservation from the previous paragraph: “It makes sense to specify the types of explosion protection of component accessories in certain cases, when, for example, ancillary equipment is placed in the certified equipment and is ultimately structurally and functionally integrated with it (for example, other ancillary equipment is installed in the enclosure of the final product). |  |  |
| **ExCB/**  **ExTL NANIO CCVE (RU)** |  |  | **General** | We consider that this DS should also address the issue of specifying the applicable standards.  Types of explosion protection implemented in ancillary equipment can be confirmed by versions of standards other than those used in the final equipment. |  |  |
| **NCC**  **BR** |  |  |  | **Question 1 (identification): we agree.**  **Question 2 (marking): we agree - option a.** |  |  |
| **NEPSI CN** |  |  | **G** | **We support the draft DS ExTAG/606A/CD.** |  |  |
| **PTB**  **DE** |  |  | **Ge** | **The DS is too unspecific in its present form. A number of certified equipment that are sold with an ancillary device do not require these restrictions (example: In case of a frequency-converter operated flameproof motor, the suitability for operation on the frequency converter is certified across-the-board. The information which frequency converter can be installed has no safety-related value for the end user and does not have to be included in the certificate. It is sufficient to document the information on the frequency converter in the approval documents).**  **For large equipment that include many separately certified ancillary equipment, it makes sense, as written in the DS, to use the marking to identify all the type of protection involved. However, this should be desired by the manufacturer and not be required by the CB. Therefore, this approach can be offered as an option, but shall not be mandatory.**  **If this option is requested, the list of ancillary equipment shall not be part of the equipment certificate as an equipment list. Replacement of any ancillary equipment with another equipment of the same type of protection does not result in any safety-relevant change to the certified equipment.** | **withdraw DS**  **or**   * **clarify the scope of the DS** * **highlight the fact that it provides an optional approach** * **delete the paragraph "** **All ancillary equipment that is used in/with the certified equipment shall be identified by manufacturer and model on the equipment certificate and in the certification drawings.".** |  |
| **QPS**  **CA** | **-** | **ANSWER (1)** | **-** | **Listing all ancillary devices on the Certificate can be difficult and confusing for a larger assembly with many devices. As it is related to control of construction, it is better for it to be on the ExTR cover page.** | **All ancillary equipment that is used in/with the certified equipment shall be identified by manufacturer and model on the equipment ExTR Cover Page and in the certification drawings.** | **Accepted in principle, but note that the user does not see the ExTR Cover Sheet, only the CoC** |
| **QPS**  **CA** |  | **Basic Principle** |  | **“The certificate shall allow a clear understanding of what equipment is covered by the certificate itself and what part(s) of the equipment is covered by separate certificates.”**  **If equipment is not covered by the certificate itself, it should not be listed on the certificate. It is either covered by the certificate of the assembly or it is not.** |  | **Not accepted (no proposal for change offered)**  **Note that the draft DS mandates the certificate to be clear on what is included in the certificate and what not. The first Comment from QPS sought to transfer this information OUT of the certificate and into the ExTR** |
| **Simtars** | **29** |  | **Ed** | **This DS uses the term “ancillary equipment”. However, this term is not used in 60079-0 but uses the term “associated equipment”.** | **Replace the term “ancillary equipment” with “associated equipment”** |  |
| **SIRA**  **GB** | 29 | - | Technical | Over-complicated Ex marking strings will cause confusion and potentially problems with installation. Ex marking strings should include only the concepts of protections for the equipment being certified and any **Ex components** which are supporting the equipment certification.  In cases outside the scope of IEC TS 60079-46, separately certified ancillary Ex equipment only requires recognition and listing in the certificate and certification drawings. | **Question 1, identification:**  How is ancillary equipment to be identified in an equipment certificate and in certification drawings?  **Answer**  All separately certified ancillary Ex equipment that is used in/with the certified equipment shall be identified by manufacturer and model on the equipment certificate and in the certification drawings.  On the front page of the IECEx certificate, the Type of Protection field shall list all types of protection that are applied in the equipment, including the types of protection used in the ancillary devices.  The equipment nameplate shall show the correct Ex marking string for the equipment only, and shall not include marking for the ancillary devices. |  |
|  |  |  |  |  | **Question 2, marking:**  Which ancillary equipment is to be marked (in the equipment Ex marking string) in an equipment certificate and on the marking labels?  **Answer:**  The Ex marking string in an equipment certificate and on the marking plate for the equipment, needs to include the protection methods of any **Component certified** (but not Equipment certified) ancillary devices provided with the equipment.  **Rationale for answer:**  The checking of the suitability of installed Components with the equipment in/on to which they are mounted, and validation of compliance with the Schedule of Limitations, must always be part of the evaluation of the complete equipment.  However, the similar checking of installed ancillary Equipment is limited to confirming that the method of installation does not defeat the protection of either the ancillary Equipment or the equipment in/on which they are mounted. |  |
| **TC31** |  |  | **ge** | WG22 finds the draft to be quite confusing, especially with inconsistent use of terms, and introduction of undefined terms. The concept of "ancillary devices" is particularly confusing as we already have "associated apparatus" and "Ex associated equipment" and 60079-0 defined terms. | Rewording to use defined terms would help. See the FMG comment on this DS and proposed changes to the text. |  |
| **TC31** |  |  | **ge** | If, as we understand, this DS was developed to address the situation with large motors, it would help if the DS said so. This would help separate the issue raised here for large motors from assemblies which are addressed by TC60079-46. | Add clarifying text to “Background”:  A typical example of such Ex Equipment would be an “eb” motor that includes an Ex Component “eb” terminal box, an Ex Equipment “ib” bearing temperature monitor, and an Ex Equipment “ib” vibration monitor. |  |
| **TC31** |  |  | **ge** | Several WG22 experts suggested that the DS be withdrawn as the intent of a DS is reduce confusion and increase consistency between certifiers. This DS appears to increase confusion and reduce consistency. | Withdraw DS and address this whole matter by revision of OD 034. |  |
| **TIIS**  **JP** | **Background** | **-** | **Ge** | **We are not sure what exactly the draft DS is trying to confirm.**  **The intention of the term of ancillary equipment/device is not clear. In addition, the wordings of ancillary equipment and ancillary device(s) are mixed in the Q&A part. Are they the same meanings?**  **We think it would be helpful to show some examples of ancillary equipment and device.** | **Provide some examples of ancillary equipment and ancillary device to help understanding.** |  |
| **UL – USA** | **Background** |  | **Technical** | **Please add a definition (or examples) of an ancillary device.** | A definition is needed to ensure a common understanding across ExCBs |  |
| **UL –**  **USA** | **Question #1 answer** |  | **Editorial** | **Depending on the nature of the equipment and its intended use, other information may need to be passed to the user.** | All ancillary equipment that is used in/with the certified equipment shall be identified at a minimum by manufacturer and model on the equipment certificate and in the certification drawings. Additional details may also be included if they are critical to the user, including the revision level of the certificate, Ex Marking string, electrical or temperature ratings, which type of cable gland to select, etc. |  |
| **UL –**  **USA** | **Question #2 answer** |  | **General** | **If an ancillary device can be clearly defined, we support option b.** |  |  |

**ANNEX A**