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

**TITLE: IEC TC 31 JWG 50 and TC 31 / IECEx Liaison report,**

**CIRCULATED TO: IECEx ExMC Meeting, Foz do Iguaçu, Brazil, 2024**

**Introduction**

This report covers the activities of JWG 50 and the TC 31 / IECEx Liaison since the last meetings of IECEx in Edinburgh in September 2023.

Objectives of the JWG are:

1. A more ordered way of passing documents back and forward between the two bodies
2. Assure responses to all requests from each organization are received in a timely manner
3. Provide a summary report to each organization at annual meetings on performance regarding item 2
4. Assuring involvement of the appropriate persons while avoiding direct involvement of other persons without channeling through the correct contact

**Meetings**

Past meetings:

November 6, 2023: Face-to-face meeting in Melville (US)

July 11, 2024: Virtual meeting

Next meetings:

September 25, 2024: Planned face-to-face meeting in Foz do Iguaçu (BR), (14:00 to 15:00, main meeting room)

**Activities and discussion topics**

* **IECEx ExTAG decision sheets (DS)**

Between the Annual Meetings of the IECEx System in Edinburgh in September 2023 three DS drafts were run through the TC 31 / IECEx Liaison process. Two of the DS drafts were circulated a second time as a revised draft for comments. All responses were returned on time.

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| **Document / Topic** | **Circulation Date (yyyy-mm-dd)** | **Status** |
| ExTAG/718/CD - Thermal conductivity of dust | 2024-01-11 | Revised (see ExTAG/718A/CD |
| ExTAG/720/CD - Tightening torque values of torque test for Ex blanking elements and Ex thread adapters | 2024-03-05 | Revised (see ExTAG/720A/CD |
| ExTAG/718A/CD - Thermal conductivity of dust | 2024-04-30 | Approved and issued as DS2024/001 on 2024-08-02 |
| ExTAG/720A/CD - Tightening torque values of torque test for Ex blanking elements and Ex thread adapters | 2024-05-17 | In progress, to be finalized during the ExTAG meeting 2024 |
| ExTAG/722/CD - Applicability of IEC 60079-0 for non-electrical equipment | 2024-05-17 | In progress, to be finalized during the ExTAG meeting 2024 (as ExTAG/722A/CD) |

Furthermore, ExTAG/706A/CD - Verification and Operation of Climate Chambers has been approved and issued as DS2023/003 on 2023-10-11 in accordance with the decision from the ExTAG Edinburgh Meeting (Decision 2023/13).

* **Maintenance of accepted IECEx ExTAG DS - 5 years for 2018**

As part of the 5-year review in accordance with OD035, four DS relevant to TC 31 were considered for 2018. All responses were returned to the ExTAG officers.

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| **Document / Topic** | **Issue Date (yyyy-mm-dd)** |
| DS 2018/002 - Temperature measurement of cable entry point and branching point temperatures on electrical rotating machines | 2018-07-18 |
| DS 2018/003 - Application of requirement for material remaining under a blind hole in flameproof enclosures | 2018-10-12 |
| DS 2018/004 - Applicability of IEC 60079-28 | 2018-10-12 |
| DS 2018/005A - The spark ignition test with supercapacitor | 2018-10-17 |

The following subjects have been relevant to the JWG 50 and the TC 31 / IECEx Liaison in the reporting period since the last IECEx meetings in Edinburgh in September 2023 and in some cases will be topics of the next JWG 50 meeting:

* **IECEx documents and their reference in TC 31 documents**

TC 31 CAG recommends that JWG 50 consider harmonized text to use where IECEx is used as an example of how compliance can be demonstrated. Such text could be included in the TC 31 good working practice (GWP). This topic based on the RESOLUTION 2023/7 of TC 31 Chair's Advisory Group (CAG) Meeting be held in Sydney Australia on 30th March 2023 to 31st March 2023 that “The TC 31 CAG recommends that TC 31 JWG 50 consider the appropriate way to reference IECEx documents (for example, DSs or ODs) in TC 31 documents.”

In order to comply with the request of the TC 31 CAG, an overview of the references in the existing TC 31 documents is currently prepared. For this purpose, a survey was conducted in TC 31 with the help of the CP via AG 36. The feedback from the convenors has been provided and the next steps will be discussed at the upcoming meeting on September 25, 2024.

* **Stocktake of IEC TC 31 publications used within IECEx**

The IECEx standard list displayed on the “Standards operated by the IECEx” webpage has been updated. The IECEx Secretariat will examine an export feature as part of the new IECEx website.

* **Interaction between IECEx and TC 31 AG 55**

IECEx is in direct contact with AG 55 on the subject of "Special conditions and use in IECEx certificates". The issue will be addressed at the ExTAG meeting in Brazil in September 2024. The topic is considered closed in JWG 50, as it is now being dealt with by the responsible persons/bodies.

* **Ex Equipment vs. Ex Component**

During the 2023 IECEx ExTAG meeting a discussion came up regarding the issue of having the same type of products certified as Ex equipment or Ex Component with a request to JWG 50 to discuss the topic at the next meeting. The topic has been discussed and is considered closed in JWG 50, as there are no options or need for action in this matter for this group.

* **Harmonization in the use of the Spark Test Apparatus (STA)**

SC 31G WG 4 plans to improve the uniform use and reliability of the STA by the IECEx test laboratories, e.g. by providing support material. In addition, it is proposed to reactivate ExTAG WG 08 Common Assessment of IS Equipment and Systems. The topic is coordinated between SC 31G WG 4 and the IECEx Secretariat. The topic will be addressed at the ExTAG meeting in Brazil in September 2024. The topic is considered closed in JWG 50, as it is now being dealt with by the responsible persons/bodies.

* **Application of IEC 60079-26**

TC 31 MT60079-26 is planning a survey in coordination with the IECEx Secretariat within the ExCBs as to whether the combination of types of protection according to IEC 60079-26 has been certified in the past and, if so, what examples exist. The topic will be addressed at the ExTAG meeting in Brazil in September 2024. The topic is considered closed in JWG 50, as it is now being dealt with by the responsible persons/bodies.

* **IEC TC31 to be assigned a horizontal safety function to prepare a basic safety publication**

At the TC 31 plenary and JWG 50 meeting in Melville (US) in November 2023 the desire for support from IECEx was expressed by WG 54 regarding the proposal for TC 31 to be assigned a Horizontal Safety Function and prepare a Basic Safety Publication. IECEx supports this initiative and expressed this in a formal notification from the IECEx Executive to WG 54 in February 2024. At this stage, no further input from IECEx is required as the application for the horizontal safety function has already been submitted and will be presented to the SMB.

* **Certification of assemblies in accordance with IEC TS 60079-46**

In the current wording of IEC TS 60079-46 it was not intended to apply for assemblies that might only be partially within a hazardous area. MT60079-46 have met and drafting for a new edition is likely to fix this matter. It was discussed whether a DS could consider this issue more quickly.

JWG 50 noted, discussed, and closed the issue, pointing out that no DS can be prepared by JWG 50, but only by an ExCB, ExTL or members of the IECEx Executive Committee (requirement of IECEx OD 035).

* **Co-Convenor for JWG 50**

The nomination of Maria Brodel as Co-Convenor of JWG 50 for the period of 2024-04-15 to 2027-04-14 has been approved by a simple majority of the P-Members voting.

* **Restructuring of JWG 50**

A draft adaptation of TC 31 Good Working Practice (GWP) has been prepared about the scope, task and membership of JWG 50 (e.g. as sub-section 4.5.1 JWG 50 - > based on E.6 of the GWP). The draft has been discussed at the JWG 50 meeting (virtual) on July 11, 2024 and will be finalized during the JWG 50 meeting in Brazil in September 2024.

In addition, the idea was discussed of expanding the task of this working group to provide a forum for communication between IEC TC31 and IECEx to discuss matters of common interest.

The topic of restructuring of JWG 50 will be discussed during the upcoming meeting on September 25, 2024.

As always, we welcome any comments or suggestions for improvements in cooperation between TC 31 and IECEx.

Respectfully submitted by Tim Krause

JWG 50 Convenor and TC 31 / IECEx Liaison