

भारतीय मानक ब्यूरो
(केंद्रीय मुहर विभाग III)

हमारा संदर्भ : सी एम डी- III/16 : आई एस / आई इ सी 60079-11

09 11 2020

विषय : पुनरीक्षित आई एस / आई इ सी 60079-11 के अनुपालन हेतु गाइडलाइन ।

सभी शाखा कार्यालय से आग्रह है कि गाइडलाइन का अनुपालन तत्काल प्रभाव से सुनिश्चित करें।

औरोस्मिता कबिराज
वैज्ञानिक सी (सी एम डी-III)

प्रमुख (सी एम डी-III)

सभी क्षेत्रीय/शाखा कार्यालय

आई टी एस विभाग – बीआईएस इंटरनेट पर डालने हेतु

BUREAU OF INDIAN STANDARDS
(Central Marks Department-III)

Our Ref: CMD-III/16 : IS/IEC 60079-11

09 11 2020

Subject: Guidelines for implementation of Revised IS/IEC 60079 (Part 11) : 2011, Explosive Atmospheres- Part 11 Explosive Atmospheres – Equipment Protection by Intrinsic Safety "i".

This has reference to the subject mentioned above.

BOs may kindly ensure implementation of the guidelines with immediate effect.

Aurosmita Kabiraj
Sc-C (CMD-III)

Head (CMD-III)

Circulated to: All ROs/BOs

Copy to: ITS – for hosting on Intranet please

CENTRAL MARKS DEPARTMENT III

Our Ref: CMD III/16: IS/IEC 60079 (Part 11)

09 11 2020

Subject: Guidelines for implementation of Revised IS/IEC 60079 (Part 11): 2011, Explosive Atmospheres- Part 11 Explosive Atmospheres – Equipment Protection by Intrinsic Safety "i"

1. IS/IEC 60079 (Part 11): 2006 has been revised and published as IS/IEC 60079 (Part 11): 2011. The last date for implementation of the revised Standard is 28 September 2021, after which the old Standard shall stand withdrawn.
2. All BOs shall inform the Applicants and Licensees under their jurisdiction about implementation of the revised Standard within a week of issuance of these guidelines.
3. The significant changes in the revised Standard as listed in the Table annexed is given for the purpose of general guidance. It shall be ensured that the product conforms to all the requirements, as applicable, as per the revised Standard.
4. Consequent upon the issuance of the revised Standard, existing STI has been revised and is contained in updated Product Manual Doc: PM/ IS/IEC 60079-11/ 1/ Nov 2020.
5. The guidelines for implementation of the revised Standard is given below:

A. LICENSEES:

- i. All Licensees shall implement the revised Standard by 28 September 2021. BOs shall ensure that no Licences are under operation as per the old Standard after 28 September 2021. **The status of implementation of the revised Standard shall be confirmed by Head (BO) to CMD-III within two weeks of the last date of concurrent running.**
- ii. For the product type designations already type tested as per old standard, a revalidation report may be obtained from any of the Third Party Testing Lab as defined in BIS Conformity Assessment Regulations, 2018 (irrespective of the Lab which has issued the original/ previous Test Report) by submitting the technical specifications along with the following:
 - a) Copy of the earlier test report/certificate for the product type designation and approved drawing.
 - b) Declaration about the changes (modifications/additions/deletions), if any, made in the equipment in order to comply with requirements stipulated in the revised IS/IEC Standard.
 - c) Revised drawing of the equipment, in accordance with the above. Revised drawing shall indicate the revision status and be correlated with the previous type test report(s).
- iii. The laboratory shall make an assessment of the equipment based on documentation mentioned above and may call for additional information or for samples if required. If testing is necessary based on the initial assessment, the laboratory shall carry out testing on the equipment as per the revised Standard.
- iv. A revalidation test report shall be issued by the Laboratory which shall include the following:
 - a) Confirmation that the equipment meets all the requirements as per the revised standard.
 - b) Any design changes or revisions in drawing vis-à-vis the equipment type-tested earlier in order to comply with requirements of revised IS/IEC Standard.
 - c) Results of assessment and tests, if any, carried out to ensure compliance with the requirements of the revised standard. Wherever further testing is not necessary, it shall be stated so and reference to the old test report/certificate number shall be given.

- d) Reference of the Drawing of the equipment as per the revised Standards in the test report. A copy of the certified drawing shall be attached to the TR.
- e) Labs may consolidate certificates of similar apparatus under different certificates.
- v. For the purpose of endorsement of implementation of revised standard, the licensee shall submit revalidation report/ new test report for **any one type designation from each product group defined at Annex A of the Product Manual (PM/ IS/IEC 60079-11/ 1/ Nov 2020)** and the same product group shall be endorsed as per the revised standard in the licence.
- vi. At the end of the concurrent running period, a consolidated endorsement mentioning Product Groups as per the grouping in the Product Manual shall be issued based on the test reports submitted by the firm.
- vii. If the firm fails to submit any test report as per the revised standard at the end of the concurrent running period, the suitable action shall be taken as per the prevailing guidelines.
- viii. **It is the responsibility of the licensee to get each of the product type designation manufactured by them tested as per the revised standard (type test report or revalidation report). During the period of concurrent running, products with test reports as per old as well as revised standard may be marked. After the last date of concurrent running, products with test reports issued as per the revised standard and whose product groups have been endorsed by BIS only shall be marked.**
- ix. Verification of implementation of the revised Standard, wherever required, may be done during the next visit which may normally be completed within six months of the last date of concurrent running.

B. APPLICATIONS FOR GRANT OF LICENCE:

- i. Existing Applications where Sample has been submitted in the Laboratory/Test Report has been issued by the Laboratory may be processed as per the old Standard. However, if the Applicant is desirous of considering the Application as per the revised Standard, a declaration may be obtained from the Applicant to that effect and the Application may be processed accordingly. An undertaking shall also be obtained from such Applicants that if the sample fails in new test requirements, Licence will not be granted by BIS as per the old version.
- ii. Applications which are recorded henceforth may be processed as per the old Standard or the revised Standard. Processing of Applications as per the old Standard shall be permitted only upto 28 September 2021 and for such cases Applicant shall give a declaration that they will implement the revised Standard by 28 September 2021.
- iii. Beyond 28 September 2021 no Licence shall be granted as per the old Standard.

C. CHANGE IN SCOPE OF LICENCE:

- i. For change in scope of Licence, the relevant provisions as given above for Applicants shall apply.
 - ii. However, processing of such applications for change in scope of Licence as per the old Standard shall be permitted only upto 28 September 2021.
6. The above guidelines come into force with immediate effect.

Aurosmitta Kabiraj
Sc-C (CMD-III)

Head (CMD-III)
DDG (Certification)

Significance of changes with respect to IEC 60079-11:2006

Significant Changes	Clause	Type		
		Minor and editorial changes	Extension	Major technical changes
General: Changes to remove specific clause references to other IEC 60079 standards	General	x		
Scope: Expansion to include Group III	1		x	
Scope: Table 1 updated to include references to both IEC 60079-0 Edition 5 and Edition 6	1		x	
Normative references: Deletion of IEC 60079-27, and addition of IEC 61158-2 and IEC 62013-1	2	x		
Terms and definitions: Commonly used definitions moved to IEC 60079-0. Energy limitation definitions moved from IEC 60079-0. New definitions added	3	x		
Spark ignition compliance: Group III ignition requirements added	5.5		x	
Temperature for small components for Group I and Group II: Relocated to IEC 60079-0	5.6.2	x		
Intrinsically safe apparatus and component temperature for Group III	5.6.5		x	
Enclosures for Group I or Group II apparatus	6.1.2	x		
Apparatus complying with Annex F	6.1.2.3 c)	x		
Enclosures for Group III apparatus	6.1.3		x	
Requirements for connections and accessories for IS apparatus when located in the non-hazardous area	6.2.5			C1
Separation of conductive parts	6.3.2	x		
Encapsulation	6.6.1	x		
Encapsulation used for the exclusion of explosive atmospheres	6.6.2			C2
Primary and secondary cells and batteries	7.4.1		x	
Battery construction	7.4.2		x	
Level of Protection "ic"	8.1	x		
Filter capacitors	8.6.2		x	
Wiring, printed circuit board tracks, and connections	8.8 c)	x		
FISCO apparatus	9.2		x	
Handlights and caplights	9.3		x	
Circuits with both inductance and capacitance	10.1.5.2	x		
Electrolyte leakage test for cells and batteries	10.5.2	x		
Spark ignition and surface temperature of cells and batteries	10.5.3	x		
Determination of the acceptability of fuses requiring encapsulation	10.6.2		x	
Optical isolators tests	10.11		x	
Marking	12.1	x		
Encapsulation	Annex D			C2
Fieldbus intrinsically safe concept (FISCO) – Apparatus requirements	Annex G		x	
Ignition testing of semiconductor limiting power supply circuits	Annex H		x	

Explanation of the Types of Significant Changes:

A) Definitions

1. Minor and editorial changes:

- Clarification
- Decrease of technical requirements
- Minor technical change
- Editorial corrections

These are changes which modify requirements in an editorial or a minor technical way. They include changes of the wording to clarify technical requirements without any technical change, or a reduction in level of existing requirement.

2. Extension:

Addition of technical options

These are changes which add new or modify existing technical requirements, in a way that new options are given, but without increasing requirements for equipment that was fully compliant with the previous standard. Therefore, these will not have to be considered for products in conformity with the preceding edition.

3. Major technical changes:

- addition of technical requirements
- increase of technical requirements

These are changes to technical requirements (addition, increase of the level or removal) made in a way that a product in conformity with the preceding edition will not always be able to fulfil the requirements given in the later edition. These changes have to be considered for products in conformity with the preceding edition. For these changes additional information is provided in clause B) below.

NOTE These changes represent current technological knowledge. However, these changes should not normally have an influence on equipment already placed on the market.

B) Information about the background of 'Major technical changes'

C1 – Requirements for external connections, other than battery charging connections, that are designed for use only when an explosive gas or dust atmosphere is not present, for example when in a non-hazardous area or when a gas-free permit is in force, have been added.

C2 – The requirements for encapsulation referenced in 6.6.2 and detailed in Annex D have been changed in terms of the thickness to the free surface and are extended related to moulding. Annex D is changed from informative to normative.