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REDLINE VERSION

Explosiv atmosfär – Del 17: Kontroll och underhåll av elektriska installationer

*Explosive atmospheres –
Part 17: Electrical installations inspection and maintenance*

En så kallad ”Redline version” (RLV) innehåller både standarden som fastställts som SS och en ändringsmarkerad IEC-standard. Alla tillägg och borttagningar sedan den tidigare utgåvan av IEC-standarderna är markerade med färg. Med en RLV sparar du mycket tid när du ska identifiera och bedöma aktuella ändringar i standarderna. SEK Svensk Elstandard kan bara ge ut RLV i de fall den finns tillgänglig från IEC.



IEC 60079-17

Edition 6.0 2023-12
REDLINE VERSION

INTERNATIONAL STANDARD



**Explosive atmospheres –
Part 17: Electrical installations inspection and maintenance**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 29.260.20

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

EXPLOSIVE ATMOSPHERES –

Part 17: Electrical installations inspection and maintenance

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 60079-17:2013. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 60079-17 has been prepared by subcommittee 31J: Classification of hazardous areas and installation requirements, of IEC technical committee 31: Equipment for explosive atmospheres. It is an International Standard.

This sixth edition cancels and replaces the fifth edition published in 2013. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

| Changes | Clause | Type | | |
|---|---------------|-----------------------------|-----------|-------------------------|
| | | Minor and editorial changes | Extension | Major technical changes |
| Simplifying description of explosive gas and dust atmospheres in the Scope and uses of these terms throughout document | 1 | X | | |
| Clarifies the exclusion of ventilated rooms in the Scope | 1 | X | | |
| Aligns maintenance terms and definitions in 3.7 and 3.8 with IEC 60079. | 3 | X | | |
| Introducing new clause 4.4.1.2. Manufacturer's documentation for cross referencing in text without repetition | 4 | X | | |
| Further guidance added into Note 4 regarding factors contributing to the deterioration of Ex Equipment. | 4.4.1.1. | | X | |
| Clarifies the change in terminology from previously used Special Condition of Safe Use to current terminology Specific Conditions of Use . | 4.11 | | X | |
| Further requirements added regarding Type of Protection "o". | 5.7 | | | C1 |
| Clarification added regarding use of inspection tables | 6 | | X | |
| Minor editorial changes and correction made to Tables 1 to 4 but with no change to item numbering or content | Tables 1 to 4 | X | | |
| Modified reference in this standard to align all types of inspection with Continuous Supervision terms for example; Skilled Personnel and Technical Persons with Executive Function. | Annex B | | | C2 |
| A typical assessment and test report is shown in C.5.14. | Annex C | X | | |
| Introducing new items in the Bibliography | Bibliography | X | | |
| NOTE The technical changes referred to include the significance of technical changes in the revised IEC Standard, but they do not form an exhaustive list of all modifications from the previous version. | | | | |

Explanations:

A Definitions

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.

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 from the previous standard.

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 an overhaul or repair of product to the preceding edition will not always be able to fulfil the requirements given in the later edition. For these changes additional information is provided in clause B) below.

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

B Information about the background of 'major technical changes'

- C1 Sub-clause 5.7 and Table 4 has been inserted based on text submitted by MT60079-6 *Explosive atmospheres – Part 6: Equipment protection by liquid immersion "o"*.
- C2 The previous reference to Responsible Person in Annex B usually reflects the roles and the responsibilities of a person rather than the technical knowledge, skills and competencies required to manage the activity of periodic inspection and maintenance of Ex equipment. The term used within the Continuous Supervision clauses of Technical Person With Executive Function provides clarity and harmonises the clauses within the document.

The text of this International Standard is based on the following documents:

| Draft | Report on voting |
|--------------|------------------|
| 31J/345/FDIS | 31J/351/RVD |

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

This International Standard is intended to be used in conjunction with IEC 60364-6.

A list of all parts of the IEC 60079 series, under the general title *Explosive atmospheres*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Electrical installations in hazardous areas possess features specially designed to render them suitable for operations in such atmospheres. It is essential for reasons of safety in those areas that, throughout the life of such installations, the integrity of those special features is preserved. This document provides the details for initial inspection and on-going inspections as either:

- a) regular periodic inspections thereafter, or,
- b) continuous supervision by Skilled Personnel.

Where necessary, maintenance ~~may~~ might also be needed.

Correct functional operation of hazardous area installations does not mean, and ~~should~~ is not to be interpreted as meaning, that the integrity of the special features referred to above are preserved.

~~Inspections are carried out in accordance with this standard, however for older installations the details for the equipment and installations requirements should be referenced to the standards applied at the date of the installation.~~

~~NOTE—Standards applied at the date of installation may not have been IEC standards.~~

EXPLOSIVE ATMOSPHERES –

Part 17: Electrical installations inspection and maintenance

1 Scope

This part of IEC 60079 applies to users and covers **only those factors** directly related to the inspection and maintenance of electrical installations ~~within~~ specifically designed for hazardous areas ~~only~~, where the hazard ~~may be~~ is caused by ~~flammable gases, vapours, mists, dusts, fibres or flyings~~ explosive atmospheres.

It does not include:

- other fundamental installation and inspection requirements for electrical installations;
- the verification of electrical equipment;
- **protection or ventilation of rooms;**
- **gas detection systems;**
- the repair, **overhaul** and reclamation of explosion protected equipment (see IEC 60079-19).

While this document does not include inspection of safety devices such as used in ventilated rooms (see IEC 60079-13), it does include the requirements for inspection and maintenance of individual items of equipment that will be part of such systems, for example motors or sensors.

This document supplements the requirements for inspection and testing in non-hazardous areas in IEC 60364-6.

~~In the case of dusts, fibres or flyings the level of housekeeping may influence the inspection and maintenance requirements.~~

This document is intended to be applied where there ~~can be~~ is a risk due to the **potential** presence of explosive gas or dust mixtures with air or combustible dust layers under normal atmospheric conditions. It does not apply to:

- underground mining areas,
- dusts of explosives ~~that do not require atmospheric oxygen for combustion,~~
- pyrophoric substances.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60079-0, *Explosive atmospheres – Part 0: Equipment – General requirements*

~~IEC 60079-1, *Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"*~~

~~IEC 60079-2, *Explosive atmospheres – Part 2: Equipment protection by pressurized enclosures "p"*~~

~~IEC 60079-7, Explosive atmospheres – Part 7: Equipment protection by increased safety "e"~~

IEC 60079-10-1, Explosive atmospheres – Part 10-1: Classification of areas – Explosive gas atmospheres

IEC 60079-10-2, Explosive atmospheres – Part 10-2: Classification of areas – ~~Combustible~~ Explosive dust atmospheres

~~IEC 60079-11, Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"~~

IEC 60079-14, Explosive atmospheres – Part 14: Electrical installations design, selection and erection

IEC 60079-15, Explosive atmospheres – Part 15: Equipment protection by type of protection "n"

IEC 60079-19, Explosive atmospheres – Part 19: Equipment repair, overhaul and reclamation

~~IEC 60079-31, Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"~~

IEC 60364-6, Low voltage electrical installations – Part 6: Verification

~~IEC 61241-4, Electrical apparatus for combustible dust atmospheres – Part 4: Type of protection "pD"~~

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Explosiv atmosfär – Del 17: Kontroll och underhåll av elektriska installationer

*Explosive atmospheres –
Part 17: Electrical installations inspection and maintenance*

Som svensk standard gäller europastandarden EN IEC 60079-17:2024. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60079-17:2024.

Nationellt förord

Europastandarden EN IEC 60079-17:2024

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60079-17, Sixth edition, 2023 - Explosive atmospheres – Part 17: Electrical installations inspection and maintenance**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60079-17, utg 4:2014 med eventuella tillägg, ändringar och rättelser gäller ej fr o m 2027-01-05.

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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English Version

**Explosive atmospheres - Part 17: Electrical installations
inspection and maintenance
(IEC 60079-17:2023)**

Atmosphères explosives - Partie 17 : Inspection et
maintenance des installations électriques
(IEC 60079-17:2023)

Explosionsgefährdete Bereiche - Teil 17: Prüfung und
Instandhaltung elektrischer Anlagen
(IEC 60079-17:2023)

This European Standard was approved by CENELEC on 2024-01-05. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 31J/345/FDIS, future edition 6 of IEC 60079-17, prepared by SC 31J "Classification of hazardous areas and installation requirements" of IEC/TC 31 "Equipment for explosive atmospheres" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60079-17:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2024-10-05 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2027-01-05 document have to be withdrawn

This document supersedes EN 60079-17:2014 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60079-17:2023 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

| | |
|------------------|---|
| IEC 60079-5 | NOTE Approved as EN 60079-5 |
| IEC 60079-6 | NOTE Approved as EN 60079-6 |
| IEC 60079-7:2015 | NOTE Approved as EN 60079-7:2015 (not modified) |
| IEC 60079-11 | NOTE Approved as EN 60079-11 |
| IEC 60079-13 | NOTE Approved as EN 60079-13 |
| IEC 60079-18 | NOTE Approved as EN 60079-18 |
| IEC 60079-26 | NOTE Approved as EN 60079-26 |
| IEC 60079-28 | NOTE Approved as EN 60079-28 |
| IEC 60204-1 | NOTE Approved as EN 60204-1 |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|---|-------------------|-------------|
| IEC 60079-0 | - | Explosive atmospheres - Part 0: Equipment - General requirements | EN IEC 60079-0 | - |
| IEC 60079-10-1 | - | Explosive atmospheres - Part 10-1: Classification of areas - Explosive gas atmospheres | EN IEC 60079-10-1 | - |
| IEC 60079-10-2 | - | Explosive atmospheres - Part 10-2: Classification of areas - Explosive dust atmospheres | EN 60079-10-2 | - |
| IEC 60079-14 | - | Explosive atmospheres - Part 14: Electrical installations design, selection and erection | EN 60079-14 | - |
| IEC 60079-15 | - | Explosive atmospheres - Part 15: Equipment protection by type of protection "n" | EN IEC 60079-15 | - |
| IEC 60079-19 | - | Explosive atmospheres - Part 19: Equipment repair, overhaul and reclamation | EN IEC 60079-19 | - |
| IEC 60364-6 | - | Low voltage electrical installations - Part 6: Verification | HD 60364-6 | - |



INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Explosive atmospheres –
Part 17: Electrical installations inspection and maintenance**

**Atmosphères explosives –
Partie 17 : Inspection et maintenance des installations électriques**

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

EXPLOSIVE ATMOSPHERES –**Part 17: Electrical installations inspection and maintenance****FOREWORD**

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IEC 60079-17 has been prepared by subcommittee 31J: Classification of hazardous areas and installation requirements, of IEC technical committee 31: Equipment for explosive atmospheres. It is an International Standard.

This sixth edition cancels and replaces the fifth edition published in 2013. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

| Changes | Clause | Type | | |
|---|---------------|-----------------------------|-----------|-------------------------|
| | | Minor and editorial changes | Extension | Major technical changes |
| Simplifying description of explosive gas and dust atmospheres in the Scope and uses of these terms throughout document | 1 | X | | |
| Clarifies the exclusion of ventilated rooms in the Scope | 1 | X | | |
| Aligns maintenance terms and definitions in 3.7 and 3.8 with IEC 60079. | 3 | X | | |
| Introducing new clause 4.4.1.2. Manufacturer's documentation for cross referencing in text without repetition | 4 | X | | |
| Further guidance added into Note 4 regarding factors contributing to the deterioration of Ex Equipment. | 4.4.1.1. | | X | |
| Clarifies the change in terminology from previously used Special Condition of Safe Use to current terminology Specific Conditions of Use . | 4.11 | | X | |
| Further requirements added regarding Type of Protection "o". | 5.7 | | | C1 |
| Clarification added regarding use of inspection tables | 6 | | X | |
| Minor editorial changes and correction made to Tables 1 to 4 but with no change to item numbering or content | Tables 1 to 4 | X | | |
| Modified reference in this standard to align all types of inspection with Continuous Supervision terms for example; Skilled Personnel and Technical Persons with Executive Function. | Annex B | | | C2 |
| A typical assessment and test report is shown in C.5.14. | Annex C | X | | |
| Introducing new items in the Bibliography | Bibliography | X | | |
| NOTE The technical changes referred to include the significance of technical changes in the revised IEC Standard, but they do not form an exhaustive list of all modifications from the previous version. | | | | |

Explanations:

A Definitions

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.

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 from the previous standard.

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 an overhaul or repair of product to the preceding edition will not always be able to fulfil the requirements given in the later edition. For these changes additional information is provided in clause B) below.

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

B Information about the background of 'major technical changes'

- C1 Sub-clause 5.7 and Table 4 has been inserted based on text submitted by MT60079-6 *Explosive atmospheres – Part 6: Equipment protection by liquid immersion "o"*.
- C2 The previous reference to Responsible Person in Annex B usually reflects the roles and the responsibilities of a person rather than the technical knowledge, skills and competencies required to manage the activity of periodic inspection and maintenance of Ex equipment. The term used within the Continuous Supervision clauses of Technical Person With Executive Function provides clarity and harmonises the clauses within the document.

The text of this International Standard is based on the following documents:

| Draft | Report on voting |
|--------------|------------------|
| 31J/345/FDIS | 31J/351/RVD |

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

This International Standard is intended to be used in conjunction with IEC 60364-6.

A list of all parts of the IEC 60079 series, under the general title *Explosive atmospheres*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

Electrical installations in hazardous areas possess features specially designed to render them suitable for operations in such atmospheres. It is essential for reasons of safety in those areas that, throughout the life of such installations, the integrity of those special features is preserved. This document provides the details for initial inspection and on-going inspections as either:

- a) regular periodic inspections thereafter, or,
- b) continuous supervision

by Skilled Personnel.

Where necessary, maintenance might also be needed.

Correct functional operation of hazardous area installations does not mean, and is not to be interpreted as meaning, that the integrity of the special features referred to above are preserved.

EXPLOSIVE ATMOSPHERES –

Part 17: Electrical installations inspection and maintenance

1 Scope

This part of IEC 60079 applies to users and covers only those factors directly related to the inspection and maintenance of electrical installations specifically designed for hazardous areas, where the hazard is caused by explosive atmospheres.

It does not include:

- other fundamental installation and inspection requirements for electrical installations;
- the verification of electrical equipment;
- protection or ventilation of rooms;
- gas detection systems;
- the repair, overhaul and reclamation of explosion protected equipment (see IEC 60079-19).

While this document does not include inspection of safety devices such as used in ventilated rooms (see IEC 60079-13), it does include the requirements for inspection and maintenance of individual items of equipment that will be part of such systems, for example motors or sensors.

This document supplements the requirements for inspection and testing in non-hazardous areas in IEC 60364-6. This document is intended to be applied where there is a risk due to the potential presence of explosive gas or dust mixtures with air or combustible dust layers under normal atmospheric conditions. It does not apply to:

- underground mining areas,
- dusts of explosives,
- pyrophoric substances.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60079-0, *Explosive atmospheres – Part 0: Equipment – General requirements*

IEC 60079-10-1, *Explosive atmospheres – Part 10-1: Classification of areas – Explosive gas atmospheres*

IEC 60079-10-2, *Explosive atmospheres – Part 10-2: Classification of areas – Explosive dust atmospheres*

IEC 60079-14, *Explosive atmospheres – Part 14: Electrical installations design, selection and erection*

IEC 60079-15, *Explosive atmospheres – Part 15: Equipment protection by type of protection "n"*

IEC 60079-19, *Explosive atmospheres – Part 19: Equipment repair, overhaul and reclamation*

IEC 60364-6, *Low voltage electrical installations – Part 6: Verification*