

# P60079-30-1

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**Submitter Email:** [r.hulett@ieee.org](mailto:r.hulett@ieee.org)

**Type of Project:** Modify Existing Approved PAR

**PAR Request Date:** 16-Sep-2013

**PAR Approval Date:** 11-Dec-2013

**PAR Expiration Date:** 31-Dec-2014

**Status:** Modification to a Previously Approved PAR

**Root PAR:** P60079-30-1 **Approved on:** 25-Mar-2010

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**1.1 Project Number:** P60079-30-1

**1.2 Type of Document:** Standard

**1.3 Life Cycle:** Full Use

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**2.1 Title:** Explosive Atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements

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**3.1 Working Group:** Electrical Resistance Heat Tracing for Industrial Applications (IAS/PCI/515\_WG)

**Contact Information for Working Group Chair**

**Name:** Richard Hulett

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**3.2 Sponsoring Society and Committee:** IEEE Industry Applications Society/Petroleum & Chemical Industry (IAS/PCI)

**Contact Information for Sponsor Chair**

**Name:** Dennis Bogh

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**4.1 Type of Ballot:** Individual

**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:** 07/2012

**4.3 Projected Completion Date for Submittal to RevCom:** 08/2013

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**5.1 Approximate number of people expected to be actively involved in the development of this project:** 30

**5.2 Scope:** This part of IEC 60079 specifies general and testing requirements for electrical resistance trace heaters for application in explosive atmospheres, with the exclusion of those classified as EPL Ga/Da (traditional relationship to Zone 0 and Zone 20 respectively). The standard covers trace heaters that comprise either factory- or field- (work-site) assembled units, and which may be series trace heaters, parallel trace heaters, trace heater pads, or trace heater panels that have been assembled and/or terminated in accordance with the manufacturer's instructions.

This standard also includes requirements for termination assemblies and control methods used with trace heating systems. The explosive atmospheres referred to by this standard are those defined in IEC 60079-10-1 and IEC 60079-10-2. This standard also includes the requirements for explosive atmospheres incorporating the Division method of area classification that may be applied by some users of this standard.

**Changes in scope:** This part of IEC 60079 specifies general and testing requirements for electrical resistance trace heaters for application in explosive ~~gas~~ atmospheres, **with the exclusion of those classified as EPL Ga/Da (traditional relationship to Zone 0 and Zone 20 respectively)**. The standard covers trace heaters that ~~may~~ comprise either factory- or field- (work-site) assembled units, and which may be series ~~heatingtrace cables~~**heaters**, parallel ~~heatingtrace cables~~**heaters**, ~~or trace heating heater pads, and/or heatingtrace heater panels~~ that have been assembled and/or terminated in accordance with the manufacturer's instructions. This standard also includes requirements for termination assemblies and control methods used with trace heating systems. The ~~hazardous explosive areas~~**atmospheres** referred to by this standard are those defined in IEC 60079-10-1 and IEC 60079-10-2. **This standard also includes the requirements for explosive atmospheres incorporating the Division method of area classification that may be applied by some users of this standard. NOTE Information on the**

NOTE Information on the Division method is given in NFPA 70 and CSA C22.1.

This standard supplements and modifies the general requirements of IEC 60079-0 for electrical resistance trace heaters and integral components, with the application or exclusion as indicated in Table 1. Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard takes precedence. Where clause numbers may change in future releases of IEC 60079-0, references to those clauses in this standard shall be taken by the description of the clauses.

Division method is given in NFPA 70 and CSA C22.1. This standard supplements and modifies the general requirements of IEC 60079-0 for electrical resistance trace heaters and integral components, with the application or exclusion as indicated in Table 1. Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard takes precedence. Where clause numbers may change in future releases of IEC 60079-0, references to those clauses in this standard shall be taken by the description of the clauses.

**5.3 Is the completion of this standard dependent upon the completion of another standard:** No

**5.4 Purpose:** Since this standard is being revised jointly with IEC, this standard will not have a purpose clause.

**5.5 Need for the Project:** In support of the very committed international community of technical experts for Trace Heating and the cooperation that has been demonstrated this joint development is needed. The representation and members of the IEEE Working Group and the IEC Maintenance Team are very similar and the documents have migrated over the years to very similar requirements. Therefore in the spirit of harmonization and less cost to industry the joint development is needed.

**5.6 Stakeholders for the Standard:** Manufacturers of resistance heating cable, designers of heat tracing systems, users of heat tracing systems e.g. petroleum, chemical, power and energy industries, and certification agencies.

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## Intellectual Property

**6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:** No

**6.1.b. Is the Sponsor aware of possible registration activity related to this project?:** No

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**7.1 Are there other standards or projects with a similar scope?:** No

## 7.2 Joint Development

**Is it the intent to develop this document jointly with another organization?:** Yes

**Organization:** International Electrotechnical Commission (IEC)

**Technical Committee Name:** Equipment for explosive atmospheres

**Technical Committee Number:** TC31

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**8.1 Additional Explanatory Notes (Item Number and Explanation):** The scope in 5.2 has been modified to reflect more accurately the scope of the 60079-30-1 standard and agree with the IEC Committee Draft that has already been circulated.

The titles for the standards referenced in 5.2 of the PAR are:

IEC 60079 - As used in the text this refers to IEC 60079-30-1

IEC 60079-30-1 Explosive Atmospheres Part 30-1 : Electrical resistance trace heating - General and testing requirements

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 - Combustible dust atmospheres

NFPA 70 National Electrical Code

CSA 22.1 Canadian Electrical Code