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Interested committees:

Title: Draft BS ISO 18436-9 Condition Monitoring and Diagnostics of Machine Systems - Requirements for training and certification of personnel. Part 9: Optical Gas Imaging.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 18436-9

Condition Monitoring and Diagnostics of Machine Systems — Requirements for training and certification of personnel —

Part 9: Optical Gas Imaging

ICS: 17.180.01; 13.320; 03.100.30

ISO/TC 108/SC 5

Secretariat: **SA**

Voting begins on:
2025-07-17

Voting terminates on:
2025-10-09

This document is circulated as received from the committee secretariat.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 18436-1 was prepared by Technical Committee ISO/TC 108, *Mechanical vibration, shock and condition monitoring*, Subcommittee SC 5, *Condition monitoring and diagnostics of machine systems*.

The document ASNT Recommended Practice SNT-TC1A (2024), “Personnel Qualification and Certification in Nondestructive Testing” was used as a reference for testing the visual acuity of candidates.

Condition Monitoring and Diagnostics of Machine Systems — Requirements for training and certification of personnel —

Part 9: Optical Gas Imaging

1 Scope

This part of ISO 18436 specifies sector specific requirements for organizations (certification bodies) operating conformity assessment systems who perform Optical Gas Imaging inspections to identify fugitive emissions (e.g, but not limited to, hydrocarbons, ammonia, sulphur hexafluoride, carbon monoxide, carbon dioxide, refrigerants) and who may recommend corrective action.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13372, *Condition monitoring and diagnostics of machines — Vocabulary*

ISO/IEC 17000:2004, *Conformity assessment — Vocabulary and general principles*

ISO 18436-1, *Condition monitoring and diagnostics of machine systems — Requirements for certification of personnel — Part 1: Sector specific requirements for certification bodies and the certification process*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 17000, and ISO 18436-1 apply. sUAS when referenced in this document, refers to small Unmanned Aerial Systems.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Certification of Personnel

4.1 General

Certified persons are not only to have the knowledge areas covered in [Annex A](#) & B shall have the knowledge, skills, and aptitude to adequately perform the job tasks for the appropriate categories as indicated in [clauses 4.2](#), [4.3](#), and [4.4](#).