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# Condition monitoring and diagnostics of machines — Requirements for certification of personnel —

## Part 6: Acoustic emission

*Surveillance et diagnostic d'état des machines — Exigences relatives  
à la certification du personnel —*

*Partie 6: Émission acoustique*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. [www.iso.org/directives](http://www.iso.org/directives)

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword - Supplementary information](#)

This document was prepared by Technical Committee ISO/TC 108, *Mechanical vibration, shock and condition monitoring*, Subcommittee SC 5, *Condition monitoring and diagnostics of machines*.

This third edition cancels and replaces the second edition (ISO 18436-6:2014), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

— in [Table A.2](#), the ISO reference standards have been cited more precisely;

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

The use of acoustic emission technology in condition monitoring is one of the key activities in predictive maintenance programmes for most industries. Other non-intrusive technologies including infrared thermography, vibration analysis, lubricant analysis, wear debris analysis and motor current analysis are used as complementary condition analysis tools. Those in the manufacturing industry who have diligently and consistently applied these technologies have experienced a return on investment far exceeding their expectations. However, the effectiveness of these programmes depends on the capabilities of individuals who perform the measurements and analyse the data.

A programme, administered by an assessment body, has been developed to train and assess the competence of personnel whose duties require the appropriate theoretical and practical knowledge of machinery condition monitoring and diagnostic techniques.

This document defines the requirements against which personnel using non-intrusive machinery condition monitoring and diagnostics technologies associated with acoustic emission for machinery condition monitoring are to be qualified and the methods of assessing such personnel.