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IRISH STANDARD

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ICS 13.230

**METHODOLOGY FOR THE RISK
ASSESSMENT OF NON-ELECTRICAL
EQUIPMENT AND COMPONENTS FOR
INTENDED USE IN POTENTIALLY EXPLOSIVE
ATMOSPHERES**

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EUROPEAN STANDARD

EN 15198

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August 2007

ICS 13.230

English Version

Methodology for the risk assessment of non-electrical equipment and components for intended use in potentially explosive atmospheres

Méthodes pour l'évaluation du risque d'inflammation des
appareils et des composants non électriques destinés à
être utilisés en atmosphères explosibles

Methodik zur Risikobewertung für nicht-elektrische Geräte
und Komponenten zur Verwendung in
explosionsgefährdeten Bereichen

This European Standard was approved by CEN on 13 July 2007.

CEN 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 Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 15198:2007) has been prepared by Technical Committee CEN/TC 305 “Potentially explosive atmospheres - Explosion prevention and protection”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2008, and conflicting national standards shall be withdrawn at the latest by February 2008.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 94/9/EC.

For relationship with EU Directive 94/9/EC, see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

EN 15198:2007 (E)

Introduction

The function of this type A standard (description of general principles) as defined in CEN Guide 414 is to describe principles for a consistent systematic procedure for ignition risk assessment depending on Group II or Group I equipment.

Annex A is informative and contains examples for ignition risk assessment.

This European Standard does not provide means to prove the conformity of equipment categories. The procedure of ignition risk assessment for the design of equipment and components lead to a defined safety level which allows categorisation according to the appropriate criteria.

It is in both the manufacturer's and user's interest to establish a common methodology for achieving safety, reliability and efficacy in functioning and operating equipment and components with respect to the ignition hazards. Thus, ignition risk assessment is a tool which provides the essential link between manufacturers and users, but only aspects that directly address manufacturers are incorporated.

Integrated explosion safety is conceived to prevent the formation of explosive atmospheres as well as sources of ignition and, should an explosion nevertheless occur, to halt it immediately and / or to limit its effects. In this connection, the manufacturer must take measures with respect to the potential ignition sources. In addition, equipment and component must be designed and constructed after due analysis of possible operating faults in order as far as possible to preclude dangerous situations taking the misuse which can reasonably be anticipated into account. Therefore it is absolutely necessary to conduct an ignition risk assessment process.

For the equipment and components the identification of the potential ignition sources is the most relevant part of the ignition risk assessment.

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