GUIDE 78

Safety of machinery — Rules for drafting and presentation of safety standards

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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.

Draft Guides adopted by the responsible Committee or Group are circulated to the member bodies for voting. Publication as a Guide 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 Guide 78 was prepared by the ISO Technical Management Board (TMB).

Introduction

As a response to the increased global trade in machinery, the relevant ISO Technical Committees have undertaken publication of a series of related machinery safety standards. It has thus been necessary to develop rules for the preparation, drafting and presentation of such safety standards, supplementing the ISO/IEC Directives, Part 2, which set out general principles and requirements for all International Standards.

This Guide provides those rules. It is intended for use by Technical Committees writing type-B and type-C standards in the field of safety of machinery (as defined in 3.2 and 3.3). It both makes use of, and refers to, the principles and concepts established in ISO 12100, and also takes into account, as far as possible, ISO/IEC Guide 51.

International Standards prepared according to this Guide are intended as a means for supporting national or regional technical regulations (e.g. legislation) for machinery safety according to the principles of UNECE Recommendation L. In order that machinery safety standards be able to support these technical regulations, the drafting of the standards can necessitate compliance with specific requirements additional to this Guide, in as far as any such additional requirements are accepted by ISO as not contradicting the content of this Guide. For example, in order to support European legislation, the *Guidelines for the implementation of the agreement on technical co-operation between ISO and CEN (Vienna Agreement), Annex C*, as well as CEN Guide 414:2004, 6.2 (ultimate paragraph), 6.5. c) and 6.11.2.2, are additionally applicable.

Safety of machinery — Rules for drafting and presentation of safety standards

1 Scope

This Guide presents rules for the drafting and presentation of International Standards dealing with machinery safety and safety components and their revisions, primarily to achieve consistency and acceptable quality of the various standards to be prepared.

It also gives requirements on the criteria for the selection of new work items and for procedures to prepare, produce or revise standards in an efficient and effective way.

This Guide gives requirements that are additional to the ISO/IEC Directives, Part 2, when this is necessary owing to the special requirements of machinery safety standards and standards for safety components.

This Guide is primarily intended for the drafting of type-C standards. It is also applicable to the drafting of type-B standards; however, the foreseeable variation in the format of these standards prevents general application. When its requirements are specific to type-B standards, this is indicated.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology*

ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles*

ISO 14121-1:2007, *Safety of machinery — Risk assessment — Part 1: Principles*

ISO/IEC Directives, Part 2:2004, *Rules for the structure and drafting of International Standards*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12100-1 and the following apply.

3.1
type-A standard
basic safety standard
standard giving basic concepts, principles for design, and general aspects that can be applied to all machinery

NOTE See ISO 12100-1:2003, Introduction.

3.2
type-B standard
generic safety standard
standard dealing with one safety aspect or one type of safeguard that can be used across a wide range of machinery

NOTE See ISO 12100-1:2003, Introduction.

3.2.1
type-B1 standard
type-B standard on particular safety aspects (e.g. safety distances, surface temperature, noise)

NOTE See ISO 12100-1:2003, Introduction.

3.2.2
type-B2 standard
type-B standard on safeguards (e.g. two-hand control devices, interlocking devices, pressure-sensitive devices, guards)

NOTE See ISO 12100-1:2003, Introduction.

3.3
type-C standard
machine safety standard
standard dealing with detailed safety requirements for a particular machine or group of machines

NOTE 1 See ISO 12100-1:2003, Introduction.

NOTE 2 The term “group of machines” means machines having a similar intended use and similar hazards, hazardous situations or hazardous events.

3.4
relevant hazard
hazard which is identified as being present at, or associated with, the machine

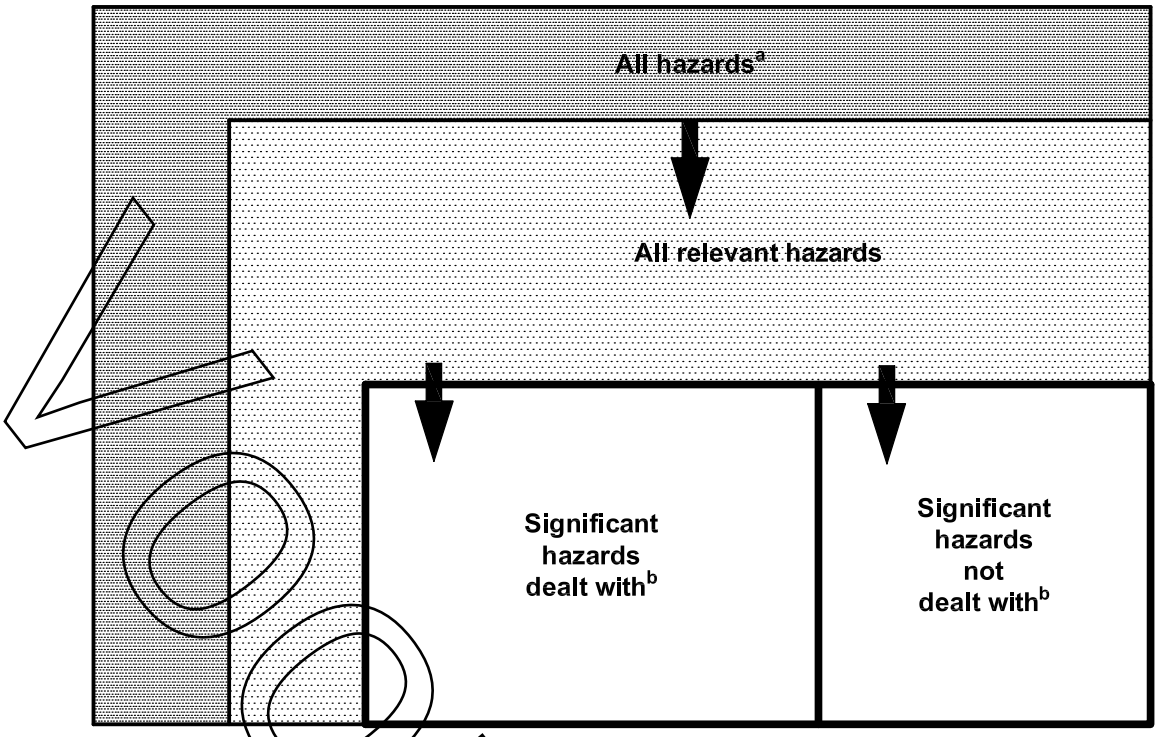
NOTE A relevant hazard is identified as the result of one step of the process described in ISO 14121-1.

[ISO 12100-1:2003, definition 3.7]

3.5
significant hazard
hazard which has been identified as relevant and which requires specific action by the designer to eliminate or to reduce the risk according to the risk assessment

See Figure 1.

[ISO 12100-1:2003, definition 3.8]



[a] These hazards are listed in ISO 14121-1:2007, Annex A.

[b] See 6.7.

Figure 1 — Dealing with hazards of a particular machine or machine group

3.6
added value
more detailed description or specification of a requirement than in existing, less specific, documents, according to the structure prescribed in ISO 12100

NOTE 1 For example, a type-B standard gives added value to the requirements of type-A standards, while a type-C standard gives added value to the requirements of type-A and type-B standards.

NOTE 2 The added value results from the design requirements applied to the product, by consensus of the interested parties, when the standard was prepared. Added value increases with technical progress.

4 General principles

4.1 All safety standards

The ISO/IEC Directives, Part 2, ISO 12100 and ISO 14121-1, shall be used in conjunction with this Guide when preparing a new safety standard or revising an existing one.

A safety standard shall not contradict the basic concepts and general principles for design stated in a type-A standard, but can deviate from specific requirements. The overall purpose of the type-A standard is to provide manufacturers, designers, etc. with the strategy or framework necessary to achieve adequate risk reduction[1)].

In general, the standards should not repeat or paraphrase the text of other reference standards; however, for better understanding of safety standards, it is acceptable to repeat a basic definition or concept, the scope of the standard, and/or a basic requirement given in ISO 12100.

1) A definition of adequate risk reduction is given in ISO 12100-1:2003, 3.17.

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