Ergonomic design of control centres - Part 7: Principles for the evaluation of control centres

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 11064-7:2006 sisaldab Euroopa standardi EN ISO 11064-7:2006 ingliskeelset teksti. Käesolev dokument on jõustatud 29.05.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 11064-7:2006 consists of the English text of the European standard EN ISO 11064-7:2006. This document is endorsed on 29.05.2006 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This part of ISO 11064 establishes ergonomic principles for the evaluation of control centres. It gives requirements, recommendations and guidelines on evaluation of the different elements of the control centre, i.e. control suite, control room, workstations, displays and controls, and work environment.	**Scope:** This part of ISO 11064 establishes ergonomic principles for the evaluation of control centres. It gives requirements, recommendations and guidelines on evaluation of the different elements of the control centre, i.e. control suite, control room, workstations, displays and controls, and work environment.

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Ergonomic design of control centres - Part 7: Principles for the evaluation of control centres (ISO 11064-7:2006)

Conception ergonomique des centres de commande - Partie 7: Principes pour l'évaluation des centres de commande (ISO 11064-7:2006)

Ergonomische Gestaltung von Leitzentralen - Teil 7: Grundsätze für die Bewertung von Leitzentralen (ISO 11064-7:2006)

This European Standard was approved by CEN on 23 March 2006.

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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 Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 11064-7:2006) has been prepared by Technical Committee ISO/TC 159 "Ergonomics" in collaboration with Technical Committee CEN/TC 122 "Ergonomics", 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 October 2006, and conflicting national standards shall be withdrawn at the latest by October 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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 United Kingdom.

Endorsement notice

The text of ISO 11064-7:2006 has been approved by CEN as EN ISO 11064-7:2006 without any modifications.

INTERNATIONAL STANDARD

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Ergonomic design of control centres —

Part 7: Principles for the evaluation of control centres

Conception ergonomique des centres de commande —

Partie 7: Principes pour l'évaluation des centres de commande

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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 11064-7 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human-system interaction*.

ISO 11064 consists of the following parts, under the general title *Ergonomic design of control centres*:

— *Part 1: Principles for the design of control centres*

— *Part 2: Principles for the arrangement of control suites*

— *Part 3: Control room layout*

— *Part 4: Layout and dimensions of workstations*

— *Part 6: Environmental requirements for control centres*

— *Part 7: Principles for the evaluation of control centres*

Introduction

This part of ISO 11064 establishes ergonomic requirements, recommendations and guidelines for the evaluation of control centres.

User requirements are a central theme of this part of ISO 11064 and the processes described are designed to take account of the needs of users at all stages. The overall strategy for dealing with user requirements is presented in ISO 11064-1.

ISO 11064-2 provides guidance on the design and planning of the control centre in relation to its supporting areas. ISO 11064-3 gives all the requirements and guidance on control room layout. Requirements for the design of workstations, displays and controls and the physical working environment are presented in ISO 11064-4 and ISO 11064-6.

The various parts of ISO 11064 cover the general principles of ergonomic design appropriate to a range of industries and service providers.

The users of this part of ISO 11064 are likely to include, for example, project managers, acceptance engineers, purchasers, suppliers and regulatory bodies.

The ultimate beneficiaries of this part of ISO 11064 will be the control centre operator and other users. It is the needs of these users that provide the ergonomic requirements used by the developers of International Standards. Although it is unlikely that the end user will read this part of ISO 11064, or even know of its existence, its application should provide the user with interfaces that are more usable and a working environment which is more consistent with operational demands. It should result in a solution that will minimize error and enhance productivity.

The terms “human factors” and “ergonomics” are used interchangeably in ISO 11064 and are considered as synonyms.

Ergonomic design of control centres —

Part 7:
Principles for the evaluation of control centres

1 Scope

This part of ISO 11064 establishes ergonomic principles for the evaluation of control centres. It gives requirements, recommendations and guidelines on evaluation of the different elements of the control centre, i.e. control suite, control room, workstations, displays and controls, and work environment.

It covers all types of control centres, including those for the process industry, transport systems and dispatching rooms in the emergency services. Although this part of ISO 11064 is primarily intended for non-mobile control centres, many of the principles could be relevant/applicable to mobile centres, such as those found on ships and aircraft.

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 11064-1:2000, *Ergonomic design of control centres — Part 1: Principles for the design of control centres*

ISO 13407, *Human-centred design processes for interactive systems*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
evaluation process
combined effort of all verification and validation (V&V) activities in a project using selected methods and the recording of the results

NOTE “Evaluation process” is used synonymously with “verification and validation process”.

3.2
human engineering discrepancy
HED
departure from some benchmark of system design suitability for the roles and capabilities of the human operator and/or user

NOTE This may, for example, include a deviation from meeting an operator/user preference.