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Spare parts provisioning

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/17

Obsahuje: EN 62550:2017, IEC 62550:2017

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62550

March 2017

ICS 03.120.01; 21.020

English Version

Spare parts provisioning
(IEC 62550:2017)

Approvisionnement en pièces de rechange
(IEC 62550:2017)

Ersatzteilbeschaffung
(IEC 62550:2017)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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EN 62550:2017

European foreword

The text of document 56/1711/FDIS, future edition 1 of IEC 62550, prepared by IEC/TC 56 "Dependability" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62550:2017.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2017-11-24
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-02-24

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The text of the International Standard IEC 62550:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60300-1	NOTE	Harmonized as EN 60300-1.
IEC 60300-3-3:2004	NOTE	Harmonized as EN 60300-3-3:2004 (not modified).
IEC 61649	NOTE	Harmonized as EN 61649.
IEC 61709	NOTE	Harmonized as EN 61709.
IEC 62308	NOTE	Harmonized as EN 62308.
IEC 62402	NOTE	Harmonized as EN 62402.
IEC 62506	NOTE	Harmonized as EN 62506.

IEC 62550

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

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IEC 62550

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INTERNATIONAL STANDARD

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FOREWORD

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International Standard IEC 62550 has been prepared by IEC technical committee 56: Dependability.

The text of this standard is based on the following documents:

FDIS	Report on voting
56/1711/FDIS	56/1719/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

Spare parts provisioning is the process for planning necessary spare parts under consideration of a customer's needs and requirements.

Proper planning and control of spare parts is a critical component of effective supportability. If the right parts are not available when needed for routine maintenance or repairs, downtime is prolonged. If too many spare parts are available, the enterprise absorbs excessive costs and the overhead of carrying inventory.

Spare part planning and supply to achieve business objectives are based on four goals:

- the right spare part;
- in the right quantity;
- at the right time;
- at the right place.

Spare parts provisioning is a prerequisite for all types of maintenance tasks, such as replacements and repairs. Spare parts for corrective maintenance tasks should be supplied at random intervals for steady state availability. It may take three to four repairs before steady state availability is reached. In this period repairs may be clustered, and the need can vary significantly over time. For preventive and on-condition maintenance, fixed intervals or approximately fixed intervals for replacement items may occur. Coordination of demand for spare parts with supply of spare parts at the required time is an important factor. Unavailable materials are one of the most cited reasons for delays in the completion of maintenance tasks.

The availability of spare parts is one of the factors that impacts system downtime. Methodologies such as integrated logistic support (ILS) and its subsidiary logistic support analysis (LSA) provide necessary information for spare parts provisioning. This information includes system breakdown, maintenance concept, and supply concept. Spare part optimization will cover issues typically giving answers to questions such as:

- which spare parts should be stored within the maintenance organization or by a supplier?
- how many spare parts of each type should be stocked?

Spare part optimization is based on operations research methods and selected reliability methods and may be analytical or use Monte Carlo simulations. The optimization process aims at balancing the cost of holding spare parts against the probability and cost of spare part shortage.

Before spare parts can be ordered, procedures for procurement, administration and storage of required material should be specified. Additionally, a general supply concept should be compiled and specified.

Correct material supply procedures will guarantee that spare parts are ordered in time and delivered when requested. The procedures also include control of the repair of replacement parts as well as the monitoring of repair turn-around times. All organizations involved, from production to purchasing and storage, via maintenance, should have complete transparency about material availability and possible completion of the task. The planned material costs in the task should be compared with its consumption. These are then documented and form the basis of usage-controlled materials planning. With this process, inventory of spare parts can be optimized to meet availability requirements with minimum inventory levels.

This document is applicable to all industries where supportability has a major impact on the dependability of the item through its life cycle.

SPARE PARTS PROVISIONING

1 Scope

This document describes requirements for spare parts provisioning as a part of supportability activities that affect dependability performance so that continuity of operation of products, equipment and systems for their intended application can be sustained.

This document is intended for use by a wide range of suppliers, maintenance support organizations and users and can be applied to all items.

2 Normative references

There are no normative references in this document.