

Guide for procurement of power station equipment - Part 1: Common clauses

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN 45510-1:2001 sisaldab Euroopa standardi EN 45510-1:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN 45510-1:2001 consists of the English text of the European standard EN 45510-1:1997.</p> <p>This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
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| <p>Käsitlusala:</p> <p>This standard gives guidance on writing the technical specification for the procurement of equipment for use in electricity generating stations (power stations). This Guide for procurement is not applicable to equipment for use in the nuclear reactor plant area of nuclear power stations. Other possible applications of such equipment have not been considered in the preparation of this Guide.</p> | <p>Scope:</p> <p>This standard gives guidance on writing the technical specification for the procurement of equipment for use in electricity generating stations (power stations). This Guide for procurement is not applicable to equipment for use in the nuclear reactor plant area of nuclear power stations. Other possible applications of such equipment have not been considered in the preparation of this Guide.</p> |
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Guide for procurement of power station equipment

Part 1: Common clauses

Guide pour l'acquisition d'équipements destinés aux centrales de production d'électricité – Partie 1: Clauses communes

Leitfaden für die Beschaffung von Ausrüstungen für Kraftwerke – Teil 1: Allgemeingültige Festlegungen

This European Standard was approved by CEN/CENELEC on 1997-10-01.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN/CENELEC member.

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CENELEC members are the national standards bodies and national electro-technical committees, respectively, of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN/CENELEC

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Foreword

This standard takes the form of a recommendation and is therefore entitled a "Guide".

This Guide for procurement has been prepared by the CEN/CENELEC Joint Task Force Power Engineering (JTFPE) of which the secretariat is held by BSI.

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 April 1998, and conflicting national standards shall be withdrawn at the latest by April 1998.

This Guide for procurement has been prepared under mandates given to CEN and CENELEC by the European Commission and the European Free Trade Association.

This Guide for procurement is a part of a series of Guides mandated to cover the procurement of power station plant and equipment in conformity with European Procurement Directives. The Guides are:

EN 45510: Guide for procurement of power station equipment

Part 1: Common clauses

Part 2-1: Electrical equipment - Power transformers

Part 2-2: Electrical equipment - Uninterruptible power supplies

Part 2-3: Electrical equipment - Stationary batteries and chargers

Part 2-4: Electrical equipment - High power static convertors

Part 2-5: Electrical equipment - Motors

Part 2-6: Electrical equipment - Generators

Part 2-7: Electrical equipment - Switchgear and controlgear

Part 2-8: Electrical equipment - Power cables

Part 2-9: Electrical equipment - Cabling systems

Part 3-1: Boilers - Water tube boilers

Part 3-2: Boilers - Shell boilers

Part 3-3: Boilers - Boilers with fluidized bed firing

Part 4-1: Boiler auxiliaries - Equipment for reduction of dust emissions

Part 4-2: Boiler auxiliaries - Gas-air, steam-air and gas-gas heaters

Part 4-3: Boiler auxiliaries - Draught plant

Part 4-4: Boiler auxiliaries - Fuel preparation equipment

Part 4-5: Boiler auxiliaries - Coal handling and bulk storage plant

Part 4-6: Boiler auxiliaries - Flue gas desulphurization (De-SO_x) plant

Part 4-7: Boiler auxiliaries - Ash handling plant

Part 4-8: Boiler auxiliaries - Dust handling plant

Part 4-9: Boiler auxiliaries - Sootblowers

Part 4-10: Boiler auxiliaries - Flue gas denitrification (De-NO_x) plant

Part 5-1: Turbines - Steam turbines

Part 5-2: Turbines - Gas turbines

Part 5-3: Turbines - Wind turbines

Part 5-4: Turbines - Hydraulic turbines, storage pumps and pump-turbines

Part 6-1: Turbine auxiliaries - Deaerators

Part 6-2: Turbine auxiliaries - Feedwater heaters

Part 6-3: Turbine auxiliaries - Condenser plant

Part 6-4: Turbine auxiliaries - Pumps

Part 6-5: Turbine auxiliaries - Dry cooling systems

Part 6-6: Turbine auxiliaries - Wet and wet/dry cooling towers

Part 6-7: Turbine auxiliaries - Moisture separator reheaters

Part 6-8: Turbine auxiliaries - Cranes

Part 6-9: Turbine auxiliaries - Cooling water systems

Part 7-1: Pipework and valves - High pressure piping systems

Part 7-2: Pipework and valves - Boiler and high pressure piping valves

Part 8-1: Control and instrumentation

*EN 45510 Part 1 contains those clauses common to all the above Guides giving the provisions of a non **equipment** specific nature for use in the procurement of power station plant. EN 45510 is the responsibility of JTFPE. The so called "common clauses", as appropriate, also appear in italics in the documents specific to particular **equipment**.*

Where paragraphs of "common clauses" are omitted, each paragraph omitted is indicated by the symbol *****.

In this Guide, words in bold type indicate that they have the meaning given in the definitions, clause 3.

In this Guide, sentences not in italics indicate the additional recommendations to be found in Guides specific to particular **equipment**.

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

Introduction

This document is the first part of a standard comprising a series of Guides for procurement (Guides) covering plant items, systems and equipment (**equipment**) that comprise a power station. The Guides were prepared to support the implementation of European Directives covering procurement in the utilities sector. Each Guide is complete in itself, but this part 1 is designed to give an indication of the content of all of the Guides and to present those clauses which are independent of the **equipment** being purchased (the so called "common clauses") as a single document. As such, this part gives a general indication of how to prepare technical specifications for power station **equipment**. The particular issues referring to specific **equipment** items are not covered in this part and the user can obtain these from the parts covering the specific **equipment**. This part 1 has the same structure and clause numbering as the parts covering specific **equipment**. This part also identifies where in the Guides the specific technical matters are covered. In some Guides, technical matters are included in additional positions and small changes have been made to the wording of the common clauses to make them relevant to the particular **equipment**. The printing of common clauses in italics and specific technical matters in upright type allows these differences to be identified. All the Guides are listed in the foreword.

1 Scope

*This standard gives guidance on writing the technical **specification** for the procurement of **equipment** for use in electricity generating stations (power stations). This Guide for procurement is not applicable to **equipment** for use in the nuclear reactor plant area of nuclear power stations. Other possible applications of such **equipment** have not been considered in the preparation of this Guide.*

This Guide covers those matters that are common to all **equipment** (the common clauses). In specific Guides, the **equipment** covered by the Guide is defined here.

*The **equipment** covered by this Guide is defined by its function rather than design type. Therefore, the guidance to the **specification** is stated in performance terms rather than being specified by a detailed description of the **equipment** to be supplied.*

*This Guide indicates to potential **purchasers** how their **specification** should be prepared so that:*

- the **equipment** type and capacity interfaces correctly with other elements of the systems;
- predicted performance is achieved;
- ancillary **equipment** is properly sized;
- **reliability, availability** and safety requirements are achieved;
- proper consideration is given to the evaluation process and the quality measures to be applied.

*This Guide does not determine the type of **specification** (e.g. detailed, performance, functional) or the extent of supply for any given contract which is normally decided on the basis of the **purchaser's** project strategy. It does not cover:*

- any commercial, contractual or legal issues which are normally in separate parts of an **enquiry**;
- any allocation of responsibilities which are determined by the contract.

*This Guide does not prescribe the arrangement of the documents in the **enquiry**.*

*NOTE: As a comprehensive European environmental policy is still under preparation, this Guide does not address the environmental implications of the **equipment**.*

2 Normative references

This Guide for Procurement incorporates by dated or undated reference, provisions from other publications. These normative references are cited in the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Guide only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN ISO 9001 Quality systems - Model for quality assurance in design, development, production, installation and servicing (ISO 9001:1994)

EN ISO 9002 Quality systems - Model for quality assurance in production, installation and servicing (ISO 9002:1994)

*IEC 50 (191) International electrotechnical vocabulary
Chapter 191: Dependability and quality of services*

The specific guides give other relevant normative references here, if appropriate.

3 Definitions

For the purposes of this Guide, the following definitions apply:

3.1 Organisational terms

3.1.1 purchaser: Recipient of a product and/or a service provided by a **supplier**.

3.1.2 supplier: Person or organisation that provides a product and/or a service to the **purchaser**.

3.1.3 specification: Document stating technical requirements of the **purchaser**. It may form part of an **enquiry** issued by a **purchaser**.

3.1.4 enquiry: Invitation to **tender** issued by a **purchaser**. It will normally include a **specification** together with the necessary contractual and commercial conditions.

3.1.5 tender: Offer made by a **tenderer** in response to an **enquiry**.

3.1.6 tenderer: Person or organisation submitting a **tender** for the **equipment** in response to the **enquiry**.

3.1.7 site: Place to which the **equipment** is to be delivered or where work is to be done by the **supplier**, together with so much of the area surrounding as the **supplier** may, with the consent of the **purchaser**, use for the purposes of the contract.

NOTE: Further definitions of useful organisational terms may be found in EN ISO 8402 (see Annex A).

3.2 Technical terms

In the specific Guides, the technical terms used in the Guide are defined here.

3.3 General terms

3.3.1 equipment: Plant, component, system and/or associated service to be provided in response to the **enquiry**.

3.3.2 conformity: Fulfilment of specified requirements by a product, process or service.

3.3.3 performance: Obligations verified by specified tests.