

Irish Standard I.S. EN 45510-4-9:1999

Guide for procurement of power station equipment - Part 4-9: Boiler auxiliaries - Sootblowers

© NSAI 2000

No copying without NSAI permission except as permitted by copyright law.

Incorporating amendments/	corrigenda issued since pu	<i>iblication:</i>	
The National Standards Authorit documents:	ty of Ireland (NSAI) produc	es the following categ	gories of formal
I.S. xxx: Irish Standard – n subject to public consultation.	ational specification based	d on the consensus of	an expert panel and
S.R. xxx: Standard Recomm panel and subject to public const	nendation - recommendati ultation.	on based on the conse	ensus of an expert
SWiFT xxx: A rapidly develope participants of an NSAI workshop	ed recommendatory docur p.	nent based on the con	sensus of the
This document replaces:			
This document is based on: EN 45510-4-9:1999	<i>Published:</i> 20 October, 1999		
This document was publish under the authority of the N and comes into effect on: 7 April, 2000			ICS number: 27.040
NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie	
Údarás ur	n Chaighdeáin Náisiúi	nta na hÉireann	

EUROPEAN STANDARD

EN 45510-4-9

NORME EUROPÉENNE EUROPÄISCHE NORM

October 1999

ICS

English version

Guide for procurement of power station equipment - Part 4-9: Boiler auxiliaries - Sootblowers

Guide pour l'acquisition d'équipements destinés aux centrales de production d'électricité - Partie 4-9: Auxiliaires de chaudière - Système de ramonage

Leitfaden für die Beschaffung von Ausrüstungen für Kraftwerke - Teil 4-9: Nebenanlagen - Rußbläser

This European Standard was approved by CEN/CENELEC on 1 October 1999.

CEN/CENELEC 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 Central Secretariat or to any CEN/CENELEC 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/CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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





CEN Central Secretariat: rue de Stassart, 36 B-1050 Brussels

CENELEC Central Secretariat: rue de Stassart, 35 B-1050 Brussels

Page 2 EN 45510-4-9:1999

	Contents	Page
Forew	vord	4
1	Scope	6
2	Normative references	6
3	Definitions	6
3.1	Organisational terms	
3.2	Technical terms	
3.3	General terms	
4	Brief overall project description	8
4.1	Role and organisation of purchaser	
4.2 4.3	Site location Equipment task	
4.3 4.4	Equipment to be purchased	
4.5	Control and instrumentation.	
4.6	Electrical supplies and other services	
4.7	Other interfaces	
4.8	Project programme	
4.9	Equipment identification systems	
5	Extent of supply	10
6	Terminal points	11
7	Operational requirements	11
7.1	Operating environment	
7.2	Manning levels	
7.3	Normal operation	
7.4 7.5	Operating hoursStart-up and shut-down	
7.5 7.6	Abnormal conditions	
7.7	Further operational requirements	
8	Life expectancy	12
8.1	Design life	
8.2	Components requiring periodic maintenance	12
9	Performance requirements	12
9.1	Duty	
9.2	Performance	
9.3	Equipment margins	
9.4 9.5	AvailabilityLevels of component redundancy	
9.5 9.6	Further performance requirements	
10	Design and fabrication	
10.1	Specific equipment features	
10.2	Design justification	
10.3	Material selection	
10.4	Safety	
10.5	Interchangeability	
10.6	Fabrication methods	
11 11.1	Maintenance requirements	
11.1 11.2	Planned maintenance Personnel safety	
11.3	Requirements for access	
11.4	Lifting requirements	
11.5	Special tools	17
11.6	Test equipment	17

Page 3 EN 45510-4-9:1999

11.7	Spare parts strategy	17
11.8	Special precautions	17
12	Technical documentation requirements	17
12.1	Tender documentation	
12.2	Contract documentation	17
13	Applicable legislation, regulations, standards and further requirements	18
13.1	Legislation and regulations	18
13.2	Standards	18
13.3	Further requirements	18
14	Evaluation criteria	18
14.1	General	18
14.2	Technical criteria	18
15	Quality measures	19
15.1	General	
15.2	Approvals procedure	19
15.3	Inspection requirements	19
15.4	Non-conformity	19
16	Site factors	20
16.1	Access	20
16.2	Facilities	20
16.3	Site specific requirements	20
17	Verification of specified performance	20
17.1	General	
17.2	Works tests	
17.3	Test during installation and commissioning	
17.4	Technical conditions for trial run	
17.5	Functional and performance tests	21
Biblio	ography	23

Page 4 EN 45510-4-9:1999

Foreword

Part 6-8:

Turbine auxiliaries - Cranes Part 6-9: Turbine auxiliaries - Cooling water systems

This European Standard has been prepared by Technical Committee CEN/CLC JTFPE "Joint Task Force Power Engineering", the secretariat of which 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 2000, and conflicting national standards shall be withdrawn at the latest by April 2000.

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.

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

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:

- 4 - 4: -

EN 45510	Guide for procurement of power station equipment
Part 1:	Common Clauses
Part 2-1: Part 2-2: Part 2-3: Part 2-4: Part 2-5: Part 2-6: Part 2-7: Part 2-8: Part 2-9:	Electrical equipment - Power transformers Electrical equipment - Uninterruptible power supplies Electrical equipment - Stationary batteries and chargers Electrical equipment - High power static convertors Electrical equipment - Motors Electrical equipment - Generators Electrical equipment - Switchgear and control gear Electrical equipment - Power cables Electrical equipment - Cabling systems
Part 3-1: Part 3-2: Part 3-3:	Boilers - Water tube boilers Boilers - Shell boilers Boilers - Boilers with fluidized bed firing
Part 4-1: Part 4-2: Part 4-3: Part 4-4: Part 4-6: Part 4-7: Part 4-8: Part 4-9: Part 4-10:	Boiler auxiliaries - Equipment for reduction of dust emissions Boiler auxiliaries - Gas-air, steam-air and gas-gas heaters Boiler auxiliaries - Draught plant Boiler auxiliaries - Fuel preparation equipment Boiler auxiliaries - Coal handling and bulk storage plant Boiler auxiliaries - Flue gas desulphurisation (De-SO _x) plant Boiler auxiliaries - Ash handling plant Boiler auxiliaries - Dust handling plant Boiler auxiliaries - Sootblowers Boiler auxiliaries - Flue gas denitrification (De-NO _x) plant
Part 5-1: Part 5-2: Part 5-3: Part 5-4:	Turbines - Steam turbines Turbines - Gas turbines Turbines - Wind turbines Turbines - Hydraulic turbines, storage pumps and pump-turbines
Part 6-1: Part 6-2: Part 6-3: Part 6-4: Part 6-5: Part 6-6: Part 6-7:	Turbine auxiliaries - Deaerators Turbine auxiliaries - Feedwater heaters Turbine auxiliaries - Condenser plant Turbine auxiliaries - Pumps Turbine auxiliaries - Dry cooling systems Turbine auxiliaries - Wet and wet/dry cooling towers Turbine auxiliaries - Moisture separator reheaters

This is a free page sample. Access the full version online.

I.S. EN 45510-4-9:1999

Page 5 EN 45510-4-9:1999

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 plants. 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**.

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

In this Guide, words and sentences not in italics are specific to this Guide and refer to the particular **equipment** covered.

Page 6 EN 45510-4-9:1999

1 Scope

This standard gives guidance on writing the technical **specification** for the procurement of **sootblower equipment** associated with steam generating plant 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 mechanical (steam or air) and acoustic sootblowers for the following applications:

- furnace wall **sootblowers** and **water lances**;
- long retractable and semi-retractable sootblowers;
- rotating element sootblowers including rake sootblowers;
- airheater sootblowers.

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 serv-

icing (ISO 9002:1994).

IEC 60050-191 International electrotechnical vocabulary – Chapter 191 : Dependability and quality

of service.

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**.



This is a free preview. Purchase the entire publication at the link below

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation