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**Technical specification for thermal power erection and
construction. Part 5: Piping and system
(English Translation)**

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Table of Contents

1 General	1
2 Terminology	2
3 Basic regulations	4
4 Inspection of piping components and supports and hangers	5
4.1 General regulations	5
4.2 Pipe inspection	5
4.3 Pipe fitting inspection	5
4.4 Inspection of flanges, gaskets and fasteners	6
4.5 Valve Inspection	7
4.6 Inspection of filter screen and compensator	8
4.7 Support and hanger inspection	8
5 Piping installation	9
5.1 General regulations	9
5.2 Pipeline factory processing and preparation	11
5.3 Installation of the four major pipelines	13
5.4 Middle and low pressure pipeline installation	14
5.5 Installation of DN65 and below pipelines	14
5.6 Installation of valves and other piping components	14
5.7 Support and hanger installation	16
5.8 Installation of temporary system for main steam and reheat steam purging	17
5.9 Installation of auxiliary steam purge temporary system	18
6 Pressure test and cleaning of piping system	20
6.1 Tightness test of soda piping system	20
6.2 Pressure test of compressed air piping system	21
6.3 Piping system cleaning	21
7 Pipeline installation technical documents	23
Appendix A Paint Color and Medium Identification of Power Plant Pipelines	24
Appendix B Common Steel Data for Power Station Pipelines	26
Appendix C Flange Gasket Material Selection	36
Appendix D Selection of Valve Sealing Packing	37
Appendix E Common Welding Joint Forms and Corresponding Treatment Methods	38
Appendix F Calculation of Pipe Head Thickness	43

Explanation of standard terms	46
List of Reference Standards	47
Article description	48

Foreword

This part is based on the "Industrial Standards System (Revision) Plan for the Energy Sector of the National Energy Administration on Issuing the 2017 and the English version of the translation and publication plan (Guoneng Zongtong Technology [2017] No. 52) requirements, in the "Power Construction Facilities Technical Specifications Part 5: Piping and Systems" DL 5190.5-2012 revised on the basis of.

There are 9 parts in DL/T 5190 "Technical Specifications for Electric Power Construction Construction".

--Part 1: Civil Engineering

--Part 2: Boiler unit

--Part 3: Steam Turbine Generator Set

--Part 4: Thermal instrument and control device

--Part 5: Piping and System

--Part 6: Water treatment and hydrogen production equipment and systems

--Part 8: Processing and Preparation

--Part 9: Hydraulic structure this part is Part 5 of DL/T 5190. Piping and System this part is divided into 7 chapters, the main technical content includes. general rules, terminology, basic regulations, pipeline components and pipeline support Hanger inspection, pipeline installation, pipeline system test and cleaning, project acceptance documents, appendices, etc.

The main contents of this section are as follows.

1 Add and modify some terms;

2 Add technical regulations for factory processing and preparation of medium and low pressure pipelines;

3 Add technical regulations for the construction of temporary pipeline systems for main steam, reheat steam and auxiliary steam purging;

4 Add technical regulations for filter and compensator inspection;

5 The appendix adds relevant regulations on the identification of the flow direction of the

pipeline medium in the power plant;

6 Delete the installation regulations for oxygen and acetylene gas pipelines;

This part was proposed by the China Electricity Council.

This part is under the jurisdiction of the Thermal Power Construction Standardization Technical Committee of the Electric Power Industry.

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2.0.1 Nominal size

Piping system components are identified by a combination of letters and numbers. It consists of letters DN and integer numbers. This number the characters are directly related to the characteristic dimensions such as the aperture or outer diameter (in mm) of the end connector.

2.0.2 Nominal pressure

It is related to the mechanical properties and dimensional characteristics of the piping system components, and is used as a reference letter and number combination identification. by the letters PN and numbers.

2.0.3 Pipe piping

It is composed of pipeline components and pipeline supports and hangers for conveying, distributing, mixing, separating, discharging, measuring or controlling Control fluid flow.

2.0.4 Piping components

Components used to connect or assemble into pipelines, including pipes, pipe fittings, flanges, gaskets, fasteners, valves, strainers and compensator, etc.

2.0.5 Pipe or tube

The cross-section used to transport fluid is a circular pipe component.

2.0.6 Pipe fittings

A category of piping components, including elbows or elbows, tees, sockets, reducers, and heads.

2.0.7 Pipe support and hanger

Various groups used to bear pipeline load, constrain pipeline displacement and control pipeline vibration, and transfer load to bearing structure the general term for parts or devices, but does not include civil structures.

2.0.8 Valves

The totality of mechanical products with movable mechanism used to control the medium in the pipeline.

2.0.9 Pipe compensators

It is connected with the pipeline to absorb and compensate the pipeline thermal expansion, cold contraction and other displacement devices.

2.10 Bent pipes bends

It has a larger bending radius and is used to change the direction of the pipe.

2.0.11 Elbows

It has a smaller bending radius and is used to change the direction of the pipe.

2.0.12 Welding elbows miter elbows

Elbows formed by pipe or steel plate welding, and pipe segment splicing with mitered welds that are not perpendicular to the longitudinal axis of the pipe Become.

2.0.13 Supervision section of pipe

The section of the steam pipeline used for metallographic structure and hardness tracking inspection.

2.0.14 Creeping inflation measuring point

Set on the supervision section, the device or mark for the creep deformation measurement of the pipeline.