

**TENDER DOCUMENTation FOR SELECTION of the contractor**

**Refurbishment of the Combined Heat and Power Plant**

**in Mladá Boleslav**

**Business Package OB 2**

**BOILER HOUSES**

**VOLUME iii**

***TECHNICAL REQUIREMENTS***

**Annex A5 - Acceptance Procedures**

**ANNEX A 1 Subject and scope of the Contract**

**Contents**

[1 INTRODUCTION 3](#_Toc171663685)

[2 BASIC PRINCIPLES 3](#_Toc171663686)

[2.1 Building Permit Requirements 3](#_Toc171663687)

[2.2 Legislation 3](#_Toc171663688)

[2.2.1 UNIT Equipment 3](#_Toc171663689)

[2.2.2 Pressure Equipment 3](#_Toc171663690)

[2.2.3 Classified Technical Equipment 4](#_Toc171663691)

[3 QUALITY PLAN 4](#_Toc171663692)

[4 THE ACCEPTANCE PROGRAM OF the LOT OB 2 5](#_Toc171663693)

[4.1 Workshop tests 5](#_Toc171663694)

[4.2 Workshop acceptances 5](#_Toc171663695)

[4.3 Acceptances and construction tests, acceptances for assembly 5](#_Toc171663696)

[4.3.1 Checks and tests of building parts 6](#_Toc171663697)

[4.3.2 Inspections and tests during acceptance for assembly 6](#_Toc171663698)

[4.4 COMPLETION OF ASSEMBLY AND PREPARATION FOR TRIAL RUN 6](#_Toc171663699)

[4.5 TRIAL RUN, GUARANTEE MEASUREMENT 8](#_Toc171663700)

[4.5.1 TRIAL RUN 8](#_Toc171663701)

[4.5.2 COMPREHENSIVE TEST 9](#_Toc171663702)

[4.5.3 GUARANTEE MEASUREMENT 9](#_Toc171663703)

[5 PRELIMINARY ACCEPTANCE CERTIFICATE (PAC) 10](#_Toc171663704)

[6 FINAL ACCEPTANCE CERTIFICATE (FAC) 11](#_Toc171663705)

[6.1 Performance of the GUARANTEE TEST B 11](#_Toc171663706)

[6.2 The Final Acceptance 11](#_Toc171663707)

[7 LIST OF ABBREVIATIONS 11](#_Toc171663708)

INTRODUCTION

The acceptance procedure is applied during the entire duration of works on the LOT OB 2, i.e. from the moment the contract enters into force, during the BASIC GUARANTEE PERIOD until the FINAL ACCEPTANCE Of THE LOT OB 2 and until the end of the EXTENDED GUARANTEE PERIOD.

BASIC PRINCIPLES

* 1. Building Permit Requirements

The Building Authority and the relevant State Administration Bodies have set the conditions for the LOT OB 2 construction. Compliance with these conditions is checked within on-site inspections during the construction of the LOT OB 2. All changes deviating from the building permit must comply with Czech laws and must be approved in advance by the CLIENT. The CLIENT must be provided with all underlying materials to be able to negotiate any such change with the Building Authority.

Before the UNIT OB 2 is put into permanent operation, the FINAL INSPECTION will take place with the participation of responsible employees of the Building Authority and relevant representatives of the State Administration Bodies. If the requirements stated in the Building Permit are successfully met, a trial run permit will be issued in accordance with the Construction Act.

The OB 2 CONTRACTOR is responsible for the preparation of all necessary documentation and certificates to meet the requirements for obtaining the Final Inspection Approval from the Building Authority in connection with the scope pf the OB 2 delivery.

The OB 2 CONTRACTOR will provide the necessary documents in the structure and the content required by the Authorities for permitting the trial run of the UNIT OB 2 according to the Construction Act.

* 1. Legislation
     1. UNIT Equipment

The OB 2 CONTRACTOR is obliged to respect the provisions of Act No. 22/1997 Coll., as amended, and the relevant regulations of the Government of the Czech Republic and Act 90/2016 Coll. on assessing the conformity of specified products and the Directive 2006/42/EC of the European Parliament and of the Council (technical requirements, a nameplate, Instructions for use in the Czech language, Declaration of Conformity in the Czech language, CE marking of the new parts).

The OB 2 CONTRACTOR based on Act 22/1997 Coll. will respect the manufacturer's or importer's obligations to assess and issue an EC declaration of conformity of the product with technical regulations and compliance with the established conformity assessment procedure before placing it on the market and keep it for ten (10) years from the production definitely discontinued.

* + 1. Pressure Equipment

The pressure equipment must be supplied in full compliance with the requirements of the pressure equipment directive - PED 2014/68 / EU, i.e., the newly supplied pressure equipment will be in accordance with Act No. 90/2016 Coll. The manufacturer of pressure equipment must proceed in such a way that it is possible to issue a declaration of conformity on the fulfilment of the requirements of the harmonized standards ČSN EN.

By issuing a Declaration of Conformity, the manufacturer assumes responsibility for the conformity of the pressure equipment or assembly in accordance with Act No. 90/2016 Coll.

The Conformity assessment is carried out by a notified body.

The OB 2 CONTRACTOR selects, and the CLIENT approves a notified body selected.

Each newly supplied product will be marked with the CE mark and, in certain cases, the number of a Notified body. Even for foreign deliveries originating from countries outside the EU, the Contractor must ensure certification according to the requirements of European regulations and notified persons.

* + 1. Classified Technical Equipment

The classified technical equipment - pressure, lifting, electric and gas equipment will be delivered and installed in accordance with the requirements of the valid Decrees of the Czech Occupational Safety Office (ČUBP), or the Ministry of Labour and Social Affairs which stipulate the details to ensure safety and health protection at work, when working with pressure, lifting, electrical and gas technical equipment.

The OB 2 CONTRACTOR will prepare all the necessary certificates and documentation for the first operational inspection test.

The OB 2 CONTRACTOR will further process and hand over to the CLIENT the following lists of Classified equipment on the basis of Act 250/2021:

* The List of classified pressure equipment,
* The List of classified lifting equipment,
* The List of classified electrical equipment,
* The List of classified gas equipment,
* The Lists will be handed in accordance with the requirements set out in Annex A7 of the Contract, Documentation Requirements.

QUALITY PLAN

The OB 2 CONTRACTOR will prepare the quality plan in accordance with ČSN ISO 10005. Its contents and scope are described in Annex A7 of the Contract, DOCUMENTATION requirements.

The Inspection and Test Plan will be a separate attachment to the Quality plan in the sense of Annex A7.

The OB 2 CONTRACTOR will prepare and submit to the CLIENT a draft inspection and test plan individually for the production phase, individually for the delivery phase and individually for the assembly phase, no later than 2 months before starting works on the relevant part of the LOT OB 2.

The OB 2 CONTRACTOR is also obliged to hand over to the CLIENT a prepared draft of the test program for production/delivery/assembly on this date.

The CLIENT is obliged to approve the submitted drafts of the Plan of inspections and tests and the program of tests within 1 month after their submission or to inform the OB 2 CONTRACTOR of the reasons for their disapproval.

In the event that the CLIENT does not agree with proposals for the Plan of inspections and tests and the program of tests, the OB 2 CONTRACTOR is obliged to review and revise the Plan of inspections and tests and the program of tests in accordance with the terms of Annex A7.

For further procedures, the above-mentioned directions are valid until the moment of approval. The draft inspection and test plan and the draft test program do not become effective until they are approved by the CLIENT. The disapproval of the draft inspection and the test plan or a program (including repeated rejection) is not a reason to extend the time for completion of the LOT OB 2, or a part thereof.

All inspections, tests and inspections carried out in connection with the execution of the LOT OB 2 by the OB 2 CONTRACTOR or Subcontractors will take place, according to the Plan of Inspections and Tests approved by the CLIENT.

The OB 2 CONTRACTOR is obliged to ensure the execution of all inspections, tests and inspections specified in the Inspection and Test Plan.

THE ACCEPTANCE PROGRAM OF the LOT OB 2

* 1. Workshop tests

The CLIENT or an organization authorized by them have the right to participate in important tests of equipment in production which include in particular:

* termination of main production operations,
* visual and dimensional tests,
* significant non-destructive tests,
* pressure and tightness tests,
* construction tests and tests of correct assembly of the unit,
* functional tests,
* inspection in production.

The CLIENT, or an organization authorized by them, have the right to participate in significant production operations of selected equipment which include in particular:

* material selection,
* thermal and technological processing,
* significant welding works,
* final operations.
  1. Workshop acceptances

The CLIENT or an organization authorized by them have the right to participate in the acceptances of the selected manufactured equipment before its dispatch. The OB 2 CONTRACTOR shall submit a plan for production, workshop tests and a dispatch with a sufficient advance notice.

* 1. Acceptances and construction tests, acceptances for assembly

The CLIENT, or an organization authorized by them, have the right to participate in: construction tests, acceptances at the OB 2 CONSTRUCTION SITE partial acceptances during assembly, tests of correctly performed assembly and operational tests.

In the event that the results of the test, acceptance or inspection do not meet the requirements of the CLIENT, the OB 2 CONTRACTOR will make the appropriate modifications to the equipment and will repeat the test at their own expenses.

Before each test or an acceptance, a protocol will be prepared with a detailed description of the course of the test or the acceptance, supplemented with comments from the CLIENT, including the agreed measures and further procedure.

* + 1. Checks and tests of building parts

In case of building parts or units, there are inspections and tests that check the building object readiness for further construction activities or for the installation of parts or units of technological or engineering equipment. Checks and tests carried out according to the Plan of inspections and tests for the building parts and subsequent test programs will in particular verify the correctness of shape, completeness, quality of execution, corresponding strength characteristics and their compliance with the accompanying technical documentation.

* + 1. Inspections and tests during acceptance for assembly

Inspections and tests during the acceptance for assembly are tests or checks that verify the correctness, completeness and technical condition of machines and equipment handed over for assembly and their accompanying technical documentation, and whether the equipment has not suffered defects during transport to the construction site that would prevent its correct and reliable function. These tests will be carried out according to the Inspection and Test Plan for acceptance of the assembly and according to the subsequent test programs.

* 1. COMPLETION OF ASSEMBLY AND PREPARATION FOR TRIAL RUN

After completing the assembly of all parts of the UNIT OB 2 or its parts - the boiler, the necessary functional tests will be carried out with regard to the special characteristics of the equipment, in accordance with the principles stated in the technical specifications and on the date indicated in the relevant breakout schedule.

During this time, the OB 2 CONTRACTOR must carry out all installation checks and demonstrate compliance with the DOCUMENTATION, the integrity of the equipment and all connections (mechanical and electrical), safety systems and verification of the functionality of individual equipment.

These tests will be carried out on individual machines or equipment separately and without any load. The delivered machines and equipment will be checked for damages after assembly, the quality of the completion of the assembly and the reliable function of the individual equipment will be proven, pressure and tightness tests will be carried out and verification that the cable connections are functional and properly connected.

Furthermore, the tests include the verification and control of all protection settings, the control of the switch-off circuits of the UNIT OB 2 and the switch-off circuits between the UNIT OB 2 or its parts and the existing operation.

Once the equipment or the system are filled, energized, or otherwise put into service, the OB 2 CONTRACTOR shall carry out 2 additional tests to demonstrate that the system and its components work together as designed, that the individual components work under varying loads, under conditions of the steady state within the set operating parameters, and that the equipment and system respond correctly to transient conditions. The OB 2 CONTRACTOR shall make all adjustments necessary to achieve the best level of reliability, capacity, and performance of the UNIT OB 2. The OB 2 CONTRACTOR shall inform the CLIENT in writing that the assembly and installation works have been completed in accordance with the contract and technical specifications.

Before the start of individual tests, an initial inspection report of the electrical equipment for the entire project must be prepared in accordance with the ČSN 33 1500 and ČSN 33 2000-6 ED.2 standards, as well as other reserved technical equipment according to the relevant valid standards and regulations. The relevant discussion and cooperation with the ITI (Institute of Technical Inspection) and the OÚIP (Regional Labour Inspectorate) will be ensured by the OB 2 CONTRACTOR.

The works including the planned TRIAL RUN schedule shall be described in the document “START-UP AND TRIAL RUN SCHEDULE“, which is subject to the CLIENTʽs approval.

* These works will include in particular: The verification that the OB 2 CONTRACTOR has provided items, services, documents, and certificates in accordance with the Contract, necessary for the proper operation of the equipment,
* a physical inspection proving that the equipment complies with the final version of the drawings, the specification and the latest applicable standards and regulations,
* checking the labelling of equipment, devices, cables, terminal boards, etc.,
* mechanical and hydraulic testing of all pipeline components and vessels within the boundaries of the CONTRACTOR's deliveries in order to demonstrate their tightness and throughput,
* tests of cable interconnection,
* testing of all individual machinery, measuring and regulating devices, automation systems, electrical equipment, lifting and handling equipment, including auxiliary equipment, so that they are treated, adjusted, calibrated, and prepared for normal operation,
* all systems and devices will be tested mechanically and hydrostatically in order to demonstrate impermeability and tightness,
* carrying out cleaning operations of individual devices of the UNIT OB 2 - all pipe components, within the boundaries of the CONTRACTOR's supplies, are cleaned and flushed in such a way as to allow operation without clogging or damage to the equipment, including ensuring the quality of steam for the turbines,
* covering and isolation of the relevant parts of the devices,
* reparation of a final list of unfinished works, including their assessment with regard to defect-free operation of the unit,
* testing of all shutdowns, safety, and emergency systems for proper operation at set values.

All coordination activities between other subjects participating in tests are provided by the OB 2 CONTRACTOR.

The result will be the issuance of a protocol on the ASSEMBLY COMPLETION.

In the course of the INDIVIDUAL TESTS, the PREPARATION FOR THE COMPREHENSIVE TESTING will begin, in which the OB 2 CONTRACTOR will tune up and test individual parts of the UNIT OB 2 in operation and perform successful functional tests in accordance with the test program approved by the CLIENT.

The functional tests schedule shall be presented by OB 2 CONTRACTOR to the CLIENT in the START-UP AND TRIAL RUN SCHEDULE before performance of the tests on the date agreed in accordance with the documentation in A7. This document is subject to the CLIENTʽs approval.

THE PREPARATION FOR TRIAL RUN means inspection checks and tests that are carried out with the aim of gradual commissioning the equipment of individual functional units, sub-operational sets up to the entire LOT OB 2. As a part of these checks and tests, the function of individual equipment and complete functional units, incl. harmonization of these equipment and devices functions with each other, as well as a coordination with the follow-up equipment of the CLIENT. The operating permit issued by the State Authorities is required for the PREPARATION FOR TRIAL RUN. This fact must be taken into account in the coordination of the project as a whole and the CLIENT must be notified of it in time in order to procure the required permits and to avoid any delay.

As a part of the PREPARATION FOR TRIAL RUN of the LOT, the following items will be ensured in particular:

* testing the functions of all individual machinery, measuring and control devices, automation systems, electrical equipment, lifting and handling equipment, including auxiliary equipment, so that they are treated, adjusted, calibrated, and prepared for normal operation,
* testing the functions of all machinery, measuring and control devices, automation systems, electrical equipment, lifting and handling equipment, including auxiliary equipment, in order to verify the controllability of the technological equipment and the functionality of all automation, protection and monitoring functions related to their operation,
* tests of backup functions through a failure simulation; for all devices/units (technological nodes, SKŘ components or electrical devices) affected; automatic standby and backup devices/units operation and correct and timely display of the relevant fault message will be tested and demonstrated. The necessary quantity of all required commodities (fuel, additives, water, etc.) is available,
* the CLIENTʽs personnel have been adequately trained

In the course of the PREPARATION FOR TRIAL RUN of the OB 2 UNIT or its part, the OB 2 CONTRACTOR will tune up and test the UNIT OB 2 or its part, including cooperation with other parts of the PLANT.

The UNIT shall be operated by the OB 2 CONTRACTOR in a manner allowing the OB 2 CONTRACTOR to perform all tests needed in the necessary operating modes.

The technology, electrical equipment, control and management systems (measurements, functional units, analogue control circuits, automata and protections) will be fully revived, adjusted, optimized and tested together for their proper functioning in cooperation with each other and in cooperation with the CLIENT's present equipment.

During the PREPARATION FOR TRIAL RUN, the OB 2 CONTRACTOR will prove, among other things, that:

* in accordance with the Contract the delivered LOT OB 2 fulfils the requirements for starting up, stopping, normal operation, solving fault conditions, as well as the requirements for power changes during condensing and extraction operating modes,
* other requirements for the LOT OB 2 technical solution specified in the Contract have been met, in particular all requirements for functions, technical parameters, performance, reliability, execution, durability and quality of the LOT OB 2,
* all backup devices and automatic standbys between the main and backup devices and equipment are functional.

The completion of the PREPARATION FOR TRIAL RUN shall be confirmed by a protocol signed by both parties.

The OB 2 CONTRACTOR shall notify the CLIENT that the UNIT OB 2 or its part, as applicable, is prepared for TRIAL RUN.

* 1. TRIAL RUN, GUARANTEE MEASUREMENT
     1. TRIAL RUN

The TRIAL RUN will be carried out by the CLIENT's staff under the supervision of the OB 2 CONTRACTOR. The aim of the TRIAL RUN is to adapt the boiler operation to the ordinary requirements, i.e. the boiler should be operated in accordance with the actual operating requirements. This does not mean the acceptance of the OB 2 LOT for commercial operation.

As a part of the TRIAL RUN, a preliminary measurement of the guaranteed parameters may be carried out for those values that can be measured using operational measurements.

The duration of the trial run shall be at least 30 days. The exact period, including the scope of activities, shall be defined by the OB 2 CONTRACTOR in the START-UP AND TRIAL RUN SCHEDULE, which subject to the CLIENTʽs approval. During this period, the boiler cannot be shut off except for the occurrence of a failure requiring complete shut-off.

At the end of the TRIAL RUN, a protocol on the termination of the TRIAL RUN is issued. If the TRIAL RUN is not evaluated as successful based on the functional properties of UNIT OB 2, the OB 2 CONTRACTOR will be invited to make corrections, and subsequently those functional properties of UNIT OB 2 that were not met in the previous TRIAL RUN will be repeated.

During the TRIAL RUN, the COMPLETE TEST and the GUARANTEE TEST A shall be performed. The time will be specified by the OB 2 CONTRACTOR in the START-UP AND TRIAL RUN SCHEDULE., which is subject to the CLIENTʽs approval.

* + 1. COMPREHENSIVE TEST

The UNIT OB 2 or its boiler part are operated by trained personnel of the CLIENT based on a program of COMPREHENSIVE TESTING under the OB 2 CONTRACTOR ´s supervision based on the CLIENT's requirements, so that the ability of continuous operation of the UNIT and other related functional capabilities of the UNIT are proven. The programme, process, methodology and time schedule shall be specified in the START-UP AND TRIAL RUN SCHEDULE, which is subject to the CLIENTʽs approval.

The UNIT OB 2 (the boiler K80, K90) will be operated at the rated output for 36 hours on fuel 1 - wood chips and 36 hours on a mixture of fuel 1 and fuel 2 (plant pellets), including automatic transition from one fuel to another, while maintaining the boiler rated output.

At the same time, operation with the combustion of technological fuel for both K80 and K90 boilers will be tested.

The UNIT OB 2, a part of the K20 boiler will be operated at the rated output for 72 hours on fuel 1 - wood chips.

As a part of the COMPREHENSIVE TEST, a preliminary measurement of guaranteed parameters will be carried out for those values that can be measured using operational measurements. In the event of fundamental non-fulfilment of the guaranteed parameters from Annex A6 (G1-12) which can be used to eliminate any measurement errors and measurement tolerances, the OB 2 CONTRACTOR will ensure remediation and the COMPREHENSIVE TEST will be repeated.

In case of a positive result of the COMPREHENSIVE TEST, a COMPREHENSIVE TEST protocol signed by both contracting parties will be drawn up.

The total duration of each phase of the COMPREHENSIVE TEST is 72 hours.

* + 1. GUARANTEE MEASUREMENT

The GUARANTEE TEST A will be performed in the course of the TRIAL RUN always for the relevant part of the LOT OB 2. The exact scope of the measurement, the time schedule and methodology shall be specified in the document “GUARANTEE MEASUREMENT PROJECT”, which is subject to the CLIENTʽs approval.

As a part of the LOT OB 2 the OB 2 CONTRACTOR will provide a qualified independent accredited organization - a testing company to perform guarantee tests to demonstrate compliance with the guaranteed values listed in Annex A6. As a part of the work of the testing company will be also preparing test protocols.

The selection and appointment of a testing company is a subject to the approval by the CLIENT.

The OB 2 CONTRACTOR OB 2 shall follow the requirements listed in Annex A6 of the Guaranteed Value when planning and performing a guarantee test.

The guarantee measurement consists of (see Annex A6):

1. GUARANTEE TEST A,
2. Guarantee measurements during the BASIC GUARANTEE PERIOD (measurement of availability),
3. GUARANTEE TEST B.

The OB 2 CONTRACTOR must describe the measurement methodology of the necessary parameters together with the expected standard and accuracy of the instrumentation and the expected measurement points together with the necessary supporting documentation in the GUARANTEE MEASUREMENT PROJECT.

The CLIENT shall receive a copy of all test reports, protocols, and records immediately upon completion of each test.

Before calculating the performance test results, the CLIENT's approval of the basic data obtained from the tests will be required.

To establish the "fully corrected operating conditions” against which the performance guarantee will be compared, the OB 2 CONTRACTOR must also provide heat balances and the correction curve detailing the conditions that would prevail under guaranteed conditions.

Steam and water properties are calculated according to the International Association for Water and Steam Properties IAPWS-IF97.

During the tests, the UNIT OB 2 will be operated by the CLIENT's employees under supervision of the OB 2 CONTRACTOR.

The Testing Company will issue a preliminary report on the GUARANTEE TEST A which will be signed by both contracting parties.

If the guaranteed parameters were not reached during the GUARANTEE TEST A, the OB 2 CONTRACTOR is obliged to repair the OB 2 WORK at their own expense and repeat the GUARANTEE TEST A, or there is a possibility of reimbursement in respect of selected values marked as “relative” in table 3.6.1 of Annex A6, which is subject to the terms set out in Article 6 of Annex A6.

The preliminary protocol on the fulfilment of the guaranteed values must be signed by the OB 2 CONTRACTOR and the CLIENT. The document “GUARANTEE MEASUREMENT PROJECT” shall include a draft of such preliminary protocol, which must include a record of the control system or other approved meter, which will contain the flow of the values from the measured period ib the basis of which it can be concluded that they have been met. The preliminary protocol shall be also prepared on the basis of an analysis of fuel from the CLIENTʽs operating laboratory, specifically the parameters of humidity, combustion heat, calorific value and ash contents in the fuel.

PRELIMINARY ACCEPTANCE CERTIFICATE (PAC)

The preliminary acceptance of the LOT OB 2 will be carried out separately in relation to individual parts of the LOT OB 2: the boiler K80, the boiler K90 and the boiler K20. The OB 2 CONTRACTOR may invite the CLIENT to preliminary acceptance of the relevant part of the LOT OB 2 solely

1. After a successful TRIAL RUN and the GUARANTEE TEST A, i.e. on the basis of the approved preliminary protocol on GUARANTEE TEST A or according to the terms of the Contract,
2. After delivery of fast wearing parts for the period of two years of the BASIC GUARANTEE PERIOD,
3. After handing over the project documentation according to Annex A7.

The relevant part of the LOT OB 2 (i.e. the parts of the boiler K80, the boiler K90, the boiler K20) will be preliminarily accepted by the CLIENT and the PRELIMINARY ACCEPTANCE CERTIFICATE (PAC) will be issued).

The final protocol of the GUARANTEE TEST A must be delivered by the approved date stated in the documentation for the GUARANTEE MEASUREMENT PROJECT.

The LOT OB 2 will be handed over to the CLIENT and the CLIENT will take over the LOT OB 2 and the period of operation within the BASIC GUARANTEE PERIOD will start.

At the same time, the EXTENDED GUARANTEE PERIOD for the construction part of the LOT OB 2 begins.

FINAL ACCEPTANCE CERTIFICATE (FAC)

* 1. Performance of the GUARANTEE TEST B

The GUARANTEE TEST B will be performed before the BASIC GUARANTEE PERIOD expires but at least 12 months after the PRELIMINARY ACCEPTANCE (PAC) and not later than 2 months before the expiration of the BASIC GUARANTEE PERIOD.

The same conditions apply to carrying out the GUARANTEE TEST B as for carrying out the GUARANTEE TEST A, including the issue of the Final Protocol on the GUARANTEE TEST B. All conditions must be also described in the GUARANTEE MEASUREMENT PROTOCOL.

* 1. The Final Acceptance

The FINAL ACCEPTANCE protocol will be signed by mutual agreement by both contracting parties after the BASIC GUARANTEE PERIOD ended, after successful guarantee measurement within the BASIC GUARANTEE PERIOD, the GUARANTEE TEST B execution, and after the CONTRACTOR removed all defects and cleared the backlogs of work and after the fulfilment of the conditions for the final approval of the LOT for operation that were included in the List of Defects and works still to be done within the PRELIMINARY ACCEPTANCE (PAC).

LIST OF ABBREVIATIONS

Note: Sorted alphabetically according to the Czech version.

| Abbreviation | Text |
| --- | --- |
| AŘ | Administration procedure code |
| I&C | Automated management of technological process |
| ATEX | ATEX Directions (Atmosphères Explosibles) for equipment and protective systems intended for use in areas with explosion hazards |
| BAT | Best Available Techniques |
| BWTP | Biological wastewater treatment plant |
| BEM | BIM Execution Plan |
| BIM | Building Information Modelling/Management |
| RR | Routine repair |
| OHS | Occupational safety and health |
| BaA | Baltic after the Alignment |
| CE | Conformité européenne |
| CCTV | Closed Circuit Television |
| CEMS | Emission monitoring system |
| CDE | Common data Environment |
| No. | Number |
| CR | Czech Republic |
| ČSN | Czech Technical Standard |
| ČSN EN | Czech Technical Standard - harmonized |
| ČSN EN ISO | Czech Technical Standard harmonized according to the International Organization for Standardization |
| ČGS | Czech Geological Survey |
| ČUBP | Czech Occupational Safety Office |
| DOSS | State Administration Bodies Concerned |
| WRW | Waste rainwater |
| DPS | Documentation required for building construction execution |
| DSP | Documents required for building permit |
| DSPS | Documentation of the actual state of construction |
| Wch | Wood chips |
| EIA | Environmental impact assessment |
| EIR | Exchange Information Requirements |
| EMC | Electromagnetic compatibility |
| EN | European standards |
| EFAS | Electronic fire alarm system |
| ES | European Community |
| EU | European Union |
| FAC | Final Acceptance Certificate |
| FAT | Factory Acceptance Test |
| FC | Frequency converter |
| GO | General overhaul |
| H | Hold point |
| HMG | Time schedule |
| HAZOP | Hazard and Operability Study |
| HW | Hardware |
| IAPWS | International Association for the Properties of Water and Steam |
| IEC | International Electrotechnical Commission |
| IFC | Industry Foundation Classes/format |
| IO | Engineering object |
| I/O | Input/output signals |
| ISO | International organization for Standardization |
| IT | Information Technologies |
| ITI | Institute of Technical Inspection |
| ITS | Internal technical standards Škoda |
| ITE | Individual tests |
| k.ú. | Cadastral area |
| KV | Comprehensive testing |
| LV | Low-voltage |
| FWT | Feed water tank |
| NV | Government Regulation |
| OB | Business package |
| SS | Steel structure |
| OUIP | Regional Labour Inspectorates |
| parc.No. | Parcel number |
| PAC | Preliminary Acceptance Certificate |
| PED | Pressure Equipment Directive |
| P&I | Piping and instrument diagram |
| BC | Belt conveyor |
| PD | Implementation documentation |
| SIT | Schedule of inspection and tests |
| POBC | Plan and organization of the building construction |
| PRE-BEP | Design plan of BIM implementation |
| PS | Operational file |
| SCR | Selective catalytic reaction |
| CGM | Combustible gas mixture |
| SIL | Safety Integrity Level |
| I&C | Instrumentation and Control system |
| SNCR | Selective Non-Catalytic Reduction System |
| SNIM | 3D model non-graphic information standard |
| SO | Building object |
| CfW | Contract for work |
| SP | Building permit |
| QMS | Quality management system |
| SW | Software |
| CS | Control system |
| SP | Solid pollutants |
| ÚSES | The concept of the territorial system of ecological stability |
| VaK | Waterworks and Sewerage Systems |
| HV | High-voltage |
| VOC | Volatile organic compound |
| ACS | Air-conditioning system |
| HP | High-pressure |
| W | Witness Point |
| WF | Workflow |