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APPROVED BY
Order of AKKUYU NÜKLEER
ANONİM ŞİRKETİ
No. _____ dated _____

Integrated Management System

REGULATION

Products Acceptance Inspection for Akkuyu NPP

QUA-II-RG-CQ-14-194-2020

(version 1)

2020

Approval Sheet

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Foreword

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1 Purpose and area of application

1.1 This document "Regulations for Products Acceptance Inspection for Akkuyu NPP (hereinafter - the "Regulations") has been developed in accordance with the requirements of the "Manual on the Management system at nuclear facilities" and defines the organization, procedure and basic principles of activities when conducting compliance assessment in the form of acceptance and testing of products intended for use at nuclear power plants, as a part of the components or as the components classified as 1, 2, 3 safety class according to NP-001 and safety class 4 according to NP-001, which is assigned the quality assurance category QA3 and higher.

1.2 The requirements of the Regulation are obligatory for the subdivisions of AKKUYU NÜKLEER ANONİM ŞİRKETİ (hereinafter - the "Company"), the Authorized Organization and organizations participating in the acceptance inspections at the Manufacturing Enterprises (its Sub-suppliers) of products for NPP.

2 Regulatory References

2.1. References to the following normative documents are used in the regulations:

The Official Newspaper of the Regulation on the Equipment Procurement Process and Approval Republic of Turkey No. 29369 of Manufacturers of Equipment for Nuclear Installations. dated May 28, 2015

NP-001-97	General Provisions on Nuclear Power Plants Safety.
PNAE G-7-008-89	Rules for Design and Safe Operation of Equipment and Pipelines of Nuclear Power Facilities.
PNAE G-7-009-89	Equipment and pipelines of nuclear power plants. Welding and overlaying. General Provisions,
PNAE G-7-010-89	Equipment and pipelines of nuclear power facilities. Welded joints and overlays. Rules of inspection.
PNAE G-7-025-90	Steel castings for nuclear power plants. The rules for Monitoring.
NP-043-11	Procedure for design and safe operation of cargo cranes for nuclear facilities.
NP-068-05	Pipeline Valves for Nuclear Power Plants. General design requirements.
GOST 2.608-78	Unified design documentation system. The Procedure for recording information on precious materials in operational documents.
GOST 1639-2009	Scrap and nonferrous and alloy wastes. Specifications.
GOST 9.014-78	Unified system of corrosion and ageing protection. Temporary corrosion protection of products. General requirements
GOST 14254-96	Ingress Protection provided by enclosures (IP Code)
GOST 15150-69	Machines, instruments and other industrial products. Modifications for different climatic regions. Categories, operating, storage and

	transportation conditions as to environment climatic aspects influence.
GOST 15155-99	Wood products for tropical regions. Protection means and protective parameters.
GOST 24634-81	Wooden boxes for export products.
GOST 19.501-78	Unified system for program documentation. Logbook. Requirements for content and issuance.
QUA-II-RG-CQ-14-190-2020	Regulations. Compliance assessment in the form of acceptance and testing of products for Akkuyu NPP
QUA-II-RG-CQ-14-191-2020	Regulations. Inspections of readiness of the manufacturer's production before commencement of manufacturing of products for Akkuyu NPP
GD.AKU.8.3-02-02-0051-2020	Regulation on Non-Conformances Control Found at Manufacturing and Incoming Inspection of Products for Akkuyu NPP.
GD.AKU.7.4-02-02-0059-2020	Regulation on the use of imported products to be used at Akkuyu NPP.

3 Terms and definitions.

The Regulations apply terms and their definitions in accordance with QUA-II-RG-CQ-14-190, QUA-II-RG-CQ-14-191, GD.AKU.8.3-02-02-0051, GD.AKU.7.4-02-02-0059, as well as the terms with corresponding definitions:

Term	Definition
List of spare parts, tool and accessories package	Document containing the nomenclature, purpose, quantity and place of stacking spare parts, tools, accessories and materials consumed during the product service life.
List of operational documents	Document establishing the set of operation documents and place of stacking documents delivered with the product or separately.
Operating guidelines	The document containing information on product design, operating principle, characteristics (properties), its constituent parts and instructions, required for correct and safe operation of the product (use as intended, maintenance, routine maintenance, storage and transportation) and assessments of its technical condition when defining the requirement of sending it for repairs, and information on disposal of product and its constituent parts.
Service log	Document, containing information, certifying manufacturer's warranty, values of the basic product parameters and characteristics, information, reflecting the technical condition of the given product, information on certification and disposal of product, and information, which is input during its operation (duration and conditions of operation, maintenance, repair and

Term	Definition
	other data).
Label	Document, containing manufacturer's warranty, product rating and characteristics (properties), information on product certification.

4 Abbreviations

The following abbreviations are used in the Regulations:

Acronym	Expansion
NPP	Akkuyu Nuclear Power Plant
APCS	Automated Process Control System
NRA	Nuclear Regulatory Agency of the Republic of Turkey
VDI	Visual and measurement control
GOST	State standard
LE	Hoisting mechanism
LMSO	Parent materials science organization
HT	Hydraulic tests
SPTA	Spare Parts, Tools and Accessories
IBC / ITS	IT system
ITD	Basis of design documentation
I&C	Instrumentation and control
ICC	Inter-crystalline corrosion
RD	Regulatory document
A&ID	Audit and Inspection Department
MI&TID	Metal Inspection and Technical Inspection Department
OST	Industry standard
QCD	Quality control department
QP	Quality plan
EOD	Equipment owner division
EDD	Manufacturing and control documentation

Acronym	Expansion
QAP	Quality assurance program
CDCP	Certification data confirmation program
AT	Acceptance tests
PDD	Engineering and manufacturing documentation
DED	Detailed Engineering Documentation
RF	Russian Federation
OM	Operating guidelines
CPS	Control and Protection System
TB-1	Quality control table of base metal
TB-2	Quality control table of welding materials, welded joints and weld overlay
TR	Terms of Reference
TR	Technical Requirements
TS	Technical specifications
AO	Authorized organization
OD	Operation documentation
HP	Hold Point
Ra	Arithmetic average surface roughness height
Rz	Average peak to valley height of surface for 10 points

5 General Provisions

5.1 The procedure for conducting acceptance inspection represents the sequential and coordinated with the Manufacturer actions by representatives of the Authorized Organization and organizations that have agreed on the Quality Plan and put a mark in it on participation in the Acceptance Inspection (hereinafter - the "Participating Organizations"), ensuring objective decision making on product adequacy for the intended use. It is formed based on the results of conformance assessment to the requirements in the sphere of nuclear energy use, TA/TS/TR, DED, PDD and agreement (contract) for delivery.

5.2 The Acceptance Inspection is obligatory for products subject to the Compliance Assessment in the form of acceptance, according to QUA-II-RG-CQ-14-190 (item 5.4.1).

5.3 The acceptance inspection is the last stage in conformance assessment/quality control of the product manufacture, whose result is decision-making on product adequacy for delivery and use for the intended purpose.

5.4 The party in charge for conducting acceptance inspections is the product Manufacturer.

The manufacturer provides the conditions for conducting acceptance inspection. (He organizes the work place or area, provides required documentation, employs Manufacturer's experts for participating in the acceptance inspection process, provides availability of stationary or portable lighting, template gages and control measuring tools and fixtures, including measuring magnifiers and endoscopes, availability of computer hardware, and hoisting mechanisms for displacement and turning of the received product and etc.).

5.5 Acceptance Inspection has the status "HP" in the Quality Plans and is carried out by an Authorized Organization.

In the event of the participation of organizations in the acceptance inspections, which had concurred the quality Plan under the established procedure and established the corresponding reference mark about its participation at the control point, the Acceptance Inspection is made by these organizations jointly with the Authorized organization.

Representatives of the Nuclear Regulatory Agency may take part in the Acceptance Inspection to oversee nuclear safety, in accordance with the "Regulation Regarding Equipment Procurement Process and Approval of Manufacturers for Nuclear Facilities".

5.6 Equipment Manufacturers plan and develop and maintain within the updated quarterly schedules for Acceptance Inspections of equipment to be shipped to NPP. The quarterly schedule of Acceptance Inspections must be sent to the Company's Quality Director in 10 (ten) business days prior the start of the new quarter. A&ID ensures the direction of quarterly schedules for acceptance inspections, within 5 (five) business days from the date of their receipt, to the addresses of the Deputy Chief Technology Officers as per directions of activities and the Head of Equipment Supply Directorate.

6 Responsibility

6.1 The Company shall be responsible for:

- inclusion of the requirements of this Regulations in the agreements (contracts) with the General Contractor/Suppliers (when entering into the agreements (contracts) for manufacturing/delivery without participation of the General Contractor);
- Participation in the Products Acceptance Inspections for Akkuyu NPP at the Manufacturers (their Sub-Suppliers);
- Nuclear Regulatory Agency Nuclear Regulatory Agency on issues of its participation in the supervision over performance of the nuclear safety;
- compliance with the requirements of this Regulations.

6.2 The General Contractor is liable for:

- the quality of products supplied to NPP;
- Participation in the Products Acceptance Inspections for Akkuyu NPP at the Manufacturers (their Sub-Suppliers);
- Compliance with the requirements of this Regulations;
- inclusion of the requirements of this Regulations in the agreement (contracts) with the Suppliers;

6.3 6.7the supplier shall be responsible for:

- the quality of products supplied to NPP;

- organizing the conditions, required for performing Products Acceptance Inspection for Akkuyu NPP at the Manufacturers (their Sub-Suppliers\);
- participation in acceptance inspections of the product for NPP at the Manufacturers;
- Compliance with the requirements of this Regulations;
- Employing the Leading material organizations and (or) expert organizations for performing expert examination and issue of reports;
- Organizing the non-conformances management, found during the performance of Acceptance Inspection, in accordance with GD.AKU.8.3-02-02-0051.

6.4 The Manufacturer shall be responsible for:

- the quality of products supplied to NPP;
- provision of the conditions, required for performing acceptance inspection of the product for NPP (organizes work place or site, provides required documentation, employs responsible engineers of the Manufacturer for participation in the acceptance inspection process, provides the availability of required control instrumentation and fixtures, and hoisting mechanisms if required to displace and turn the accepted product, unpacks the product etc.);
- Compliance with the requirements of this Regulations;
- Employing the Leading material organizations and (or) expert organizations for performing expert examination and issue of reports;
- organizing the non-conformances management, found during the performance of Acceptance Inspection, in accordance with GD.AKU.8.3-02-02-0051;
- Preparation of documents, required for consideration during the performance of acceptance inspection;
- participation in the Products Acceptance Inspection from Sub-Suppliers (in the case when the Manufacturer is the manufacturer of the final product).

6.5 The Authorized organization shall be responsible for:

- Performing Product Acceptance Inspection for NPP at the Manufacturers and Sub-Suppliers;
- compliance with the requirements of this Regulations.
- visual and, if required, measurement inspection of the products;
- accuracy and content of the supporting documentation, including quality documents;
- completeness of the DED that is being sent to the end user of the products, as per the requirements of the agreement (contract) for manufacturing and (or) supply of the products;
- completeness of the technical control report documentation;
- completeness of the accompanying documentation;
- compliance of the completeness and quantity of products and SPTA with the requirements of the agreement (contract) for the manufacture and (or) supply of products;
- compliance of preservation, painting, packaging, marking (including its availability and legibility) of products and containers with the requirements of the agreement (contract) for the manufacture and (or) supply of products;
- accuracy of the Products' Data sheets;

- existence of measures to protect the products against moisture and corrosion during their delivery to the NPP in accordance with the requirements to protection against tropical coastal climate established by GOST 15150 and against shocks, displacements inside the package etc. with due regard to different shapes and dimensions of the Products;
- - prevention of placement of products made under different drawings, work orders for different Products, in the same shipping container. Packaging of the products manufactured under different drawings in the same shipping container is acceptable if the Products are tightly secured and small parts are put into an individual solid package;
- the reliability of the documentation placement (hard and electronic copies) shipped with the product;
- marking the products' containers in compliance with the terms of the manufacturing and (or) delivery agreement (contract);
- availability, in case of necessity, of edging frames, supports or keel-blocks and other devices for transportation and overloading of heavy and large-dimension transportation containers of products;
- - existence of documentation necessary to ship out transportation containers and packaging;
 - 1) packing list;
 - 2) copies of certificates authenticated by the Manufacturer;
 - 3) shipping specification/packing list, including overall dimensions, volumes and weights of the products and their deliverable pieces;
 - 4) -certificates of origin (if required);
 - 5) the certificate on antiseptic preparation of crate wood, as per GOST 24634 and GOST 15155;
- absence of operating fluids leakage from the product and of damages;
- monitoring of the individual placement and labeling of spare parts, expendables and special tools delivered together with the products;
- - the manufacturer's requirements included in the technical documentation concerning the application of temporary protective coatings on the packaging and conservation;
- monitoring of the protection of all pipe ends and pipelines of the products;
- monitoring of the application of reliable protective material on precision machined surfaces of the products in order to prevent their damage and corrosion during transportation and warehousing;
- existence of appropriate resolutions regarding the use of imported products;

7 Organizing conduct of acceptance inspection

7.1 The organizations specified in Section 6 shall establish the requirement of their participation in the acceptance inspection by defining the status "HP" at the checkpoint "Acceptance inspection" when approving the quality Plan for the manufacturing of the products.

7.2 The Acceptance Inspection Notice (hereinafter - the "Notice") is sent by the Manufacturing Enterprises in a timely manner to the Supplier / General Contractor. The form of notice is specified in Appendix No. 1. The Supplier (if there is a direct contract with the Company) / General Contractor is obliged to send a Notice to the Authorized Organization and organizations participating in the product Compliance Assessment (for the Company, the Acceptance Inspection

Notice is sent to the Quality Director), which have established the HP status in control point "Acceptance Inspection" of the Quality Plan, at least in 20 (twenty) business days prior the start of its performance.

7.3 The notice is sent by an official letter, in the form of Appendix No. 8 to QUA-II-RG-CQ-14-190, to the Supplier / General Contractor to notify them to the Company at least in 20 (twenty) business days prior the start of its performance, with the scanned attachment versions of quality plans confirming the closure of inspection operations in the Quality Plan prior to the Acceptance Inspection.

Note - all letters of notice about the Acceptance Inspection are duplicated to the email address quality@akkuyu.com and are accepted for processing by the A&ID, the next day after they are received, to this email address.

7.4 The procedure for the Company to make a decision to participate in the Acceptance Inspection:

7.4.1 The Company's Quality Director sends letters of notice about the Acceptance Inspection to confirm participation (via the Enterprise control management):

– To the Director for Equipment and Logistics for confirmation and participation of representatives of the division (if necessary) in charge of the agreement (contract) under which products for the NPP are manufactured (hereinafter - the "Contract Supervisor");

– To the Deputy Director of the NPP under construction - Chief Technology Officer to confirm the participation of EOD and MI&TID representatives.

7.4.2 The Contract Supervisor within 3 (three) business days sends (by means of the Enterprise control management), to the head of the A&ID, information on the participation of their representatives or refusal to participate in the inspection.

7.4.3 EOD and MI&TID within 3 (three) business days sends (via the Enterprise control management) information about the participation of their representatives or refusal to participate in the inspection to the Head of the A&ID.

7.4.4 A&ID, within a period of not more than 5 (five) business days, sends the Acceptance Inspection Notice to the Nuclear Regulatory Agency (in the cases where the Nuclear Regulatory Agency has the inspection status "HP" and (or) "WP").

7.4.5 A&ID sends a response on participation in the Acceptance Inspection to the General Contractor, Supplier (if there is a direct agreement (contract) with the Company), AO, Manufacturer, within:

– 15 (fifteen) business days (in the cases when the NRA has established the status "HP" and (or) "WP" in the Acceptance Inspection);

– 7 (seven) business days (in all the other cases).

7.4.6 In the event the Company decides not to participate in the Acceptance Inspection, the A&IDI sends a letter of non-confirmation of participation to the AO and organizations of the participants in the Acceptance Inspection. Thus, a letter on the participation / non-participation of representatives of the NRA is sent in accordance with item 7.4.5.

7.5 The Supplier (if there is a direct contract with the Company) / General Contractor must ensure that the participating organizations receive the appropriate Acceptance Inspection Notice.

7.6 The original of the Notice in two copies is sent to the representatives of the AO and the participating organizations upon their arrival at the Manufacturing Enterprise for the Acceptance Inspection.

7.7 Depending on the acceptance conditions (mass or periodic manufacture, availability of the permanent representative of the Authorized organization at the Manufacturer etc.) and by agreement with the Authorized organization the Notification can be sent to the Authorized organization within less than 2 (two) business days before the start of inspection.

7.8 If necessary (a large number of products manufactured according to one Quality Plan, etc.), it is allowed to draw up an appropriate Appendix to the Notice (the form is indicated in Appendix No. 3). Thus, the Notice shall contain the appropriate links to the documented Appendix.

7.9 In case of revealing comments and (or) non-conformities during the Acceptance Inspection and the need to perform a repeated Acceptance Inspection, the corresponding remark "Repeated Acceptance Inspection Notice" is made in the Notices and a link to the number and date of the Acceptance Inspection Report is indicated, which contains comments and (or) non-conformities, as well as documents confirming the elimination of comments and (or) non-conformities are attached therein. The procedure for Repeated Acceptance Inspection Notice corresponds to item 7.2.

8 Performing the Acceptance Inspection

8.1 The acceptance inspection is performed at the agreed and planned time period specified in the related Covering Letters.

8.2 If the Manufacturer had received confirmation of the presence of the member organizations in the acceptance inspection, but they had not arrived at the appointed time to the place of Acceptance Inspection or confirmation of their participation had not been received, the Acceptance Inspection is delayed for 48 (twenty-eight) hours, and the Authorized organization and member organizations for performing acceptance inspection are notified in writing to that effect, thereafter the Acceptance Inspection is continued independent of the presence of the representatives of the given organizations.

8.3 If there is no confirmation of its presence and the member organization's representative fails to appear for performing acceptance inspection, where the participation of the given organization's representative is stipulated, the Manufacturer specifies the number and date of the letter(-s) addressed to this organization in the "Remarks" column of the Quality Plan about the delay of operation for 48 (forty-eight) hours, sent in accordance with the item 8.2. These letters are enclosed with the Quality Plan sent in a complete set with supporting documentation for the products.

8.4 Acceptance Inspection is performed at the stage of the end of production. Products are presented to the Acceptance Inspection prior to preservation and packaging.

8.5 For Acceptance Inspection, the Manufacturer presents products accepted by the Quality Control Department of the Manufacturer and completed in accordance with the TA/TS/TR and the agreement (contract) for the supply, having passed the necessary measurements, checks, tests, and inspections in the amount and sequence provided for by the program and inspection and test methodology, technical documentation and the Quality Plan.

8.6 The acceptance inspection is performed in the scope of:

- Documentation completion check;
- check of the correctness and content of documentation, including quality documents, technical control deliverables and accompanying documentation (if necessary);
- visual and measuring control of products, including control of overall and connecting and (or) installation dimensions of products;
- Qualification inspection of product completeness and quantity and SPTA;
- monitoring of the qualification inspection of preservation, painting, packing and

labelling of product;

– check of the packaging conformity (unless otherwise provided in accordance with item 8.11);

– Transport container conformance inspection including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).

8.7 The recommended number of checks during acceptance inspection for different types of products is presented in Appendices Nos 4, 5, 6, 7, 8, 9, 10, 11, 12 и 13. Depending on the products characteristics and the product type, this number may vary.

8.8 The inspection shall be made for conformity to the requirements of RD, DED, PDD, BDD, TS/TA/TR and delivery agreement (contract).

8.9 The acceptance inspection in the quality Plans shall be document by one control point, completing the quality Plan and comprising the checkout operations, listed in item 8.6.

8.10 If according to the conditions of production the specified operations are substantially staggered (for example, several days are required for performing the entire complex of acceptance inspection) or are included in other checkpoints with the status “HP” for the Authorized organization (for example, acceptance tests), it is allowed to document the given operations in separate or include in other checkpoints that shall be specified during development and concurrence of the quality Plan. Besides, if these operations are not carried out repeatedly, the remaining operations are specified in the quality Plan in accordance with item 8.6 of the Regulations.

8.11 If the performance of Acceptance Inspection ends before the packing of product, the Authorized organization independently monitors the preservation, packing and their conformity to the requirements of RD, DED, PDD, TS/TA/TR and delivery agreement (contract) before shipment of the product to the consumer (Company or Manufacturer of end product).

8.12 The Product Acceptance Inspections are performed by the representative of the Authorized organization with the participation of the representatives of the member organizations and the manufacturer’s person-in-charge.

8.13 When performing the Acceptance Inspection, the representatives of the Authorized Organization and the participating organizations are presented with documents confirming the quality of the supplied products (records and certificates of acceptance, acceptance tests, standard/head samples test, calculations, reports, documents issued based on the results of monitoring, etc.) and its compliance with the parameters specified in the TS/TA/TR.

8.14 The submission of the product for acceptance inspection is made piece by piece, or in batches of product units, or aggregate of several units or batches of product that are reflected in the Notice.

8.15 If for one quality Plan the manufacture of several product units or batches are controlled, on which the Manufacturer documents several documents of quality and supporting document sets, the check of the supporting documentation completeness and check of the formal correctness and content of the supporting documentation, including documents on quality, are to be made for all the sets.

8.16 If during the quality check process of product manufacture and according to conditions of production a part of the scope of check, specified in item 8.6, was inspected as part of other checkpoints of the quality Plan that is confirmed by the manufacturer and Authorized organization’s documents, the repeat check of the specified operations and documents cannot be performed during Acceptance Inspection.

If the member organizations take part in the performance of Acceptance Inspection, the check shall be performed in full.

9 Completion of the Acceptance Inspection

9.1 The Acceptance Inspection Report is signed following the acceptance inspection (hereinafter - the "Report"). The format for the Report is indicated in Appendix No. 2.

9.2 After the completion of acceptance inspection and performance of conformity assessment of product preservation, painting, packing and labelling, including the check of the container etc., the Authorized organization's work for performing Acceptance Inspection is considered as executed.

9.3 If the acceptance inspection result is positive the point of quality Plan "Acceptance Inspection" is closed by the Authorized organization and member organizations of the acceptance inspection, establishing the note of their participation at the given point. Records are made to the Quality Plan in accordance with the requirements of QUA-II-RG-CQ-14-190. The Report (as well as the Notice) is issued in two copies. One copy of the Report, documented and signed, remains with the Manufacturer, the second copy of the Report, documented and signed, is taken by the relevant representatives of the Authorized Organization and organizations participating in the Acceptance Inspection.

9.4 If there are differences, the representative of the organizations participating in the Acceptance Inspection can state "separate opinion" in the Report following the check and not close (sign) the "Acceptance Inspection" point of the Quality Plan. If there is separate opinion the representative of the organization signs the Report with the note "separate opinion".

9.5 The product is considered as having failed the acceptance inspection, if following its results product mismatch shall be established, at least for one mandatory established requirement.

9.6 The Manufacturer applies the mismatch management procedures for the product having failed the Acceptance Inspection that regulate the permitted remedial of inconsistencies and relating such product to definitive defective product in accordance with the requirements of GD.AKU.8.3-02-02-0051.

9.7 The inconsistencies, remedied by the Manufacturer during the acceptance inspection process, do not require the documentation of non-conformity reports and are not included in the Report.

9.8 The product, failing the first pass acceptance inspection, after remedial of the inconsistencies is subject to Repeated Acceptance Inspection, upon Notice with the note "Repeat", signed by the expert engineer, appointed by the order of the Manufacturer's management and chief engineer or persons acting on their behalf.

9.9 When sending the repeat Notifications to the Authorized organization and member organizations the inconsistencies registering documents and decisions taken, documented and concurred in conformity with the GD.AKU.8.3-02-02-0051, are submitted.

the Format for the Acceptance Inspection Notice

Manufacturer _____
Shop No. _____ dated: " ____ " _____ 20 ____.

To the Representative (Representatives) of _____
(name of the organization)

ACCEPTANCE INSPECTION NOTICE No. _____

To be submitted for the Acceptance Inspection _____
(products's name, drawing designation)

Of the Safety class _____, of the quality assurance category _____, in the number of _____

Manufacturing numbers (KKS codes)

Quality plan: _____
Accepted by the Quality Control Department and corresponds to the requirements of:
The Technical specifications (technical assignment, standard, etc.) _____
The DED (DED designation) _____
The Agreement (Contract No. _____ dated « ____ » _____
20 ____.
between _____ and _____.

Special notes:

The products shall be presented together with the following:

1	Data sheets/Manufacturer's certificate/Certificates	<input type="checkbox"/>	10	Compliance certificates	<input type="checkbox"/>
2	Set of drawings	<input type="checkbox"/>	11	Spare parts list	<input type="checkbox"/>
3	Results of strength calculations	<input type="checkbox"/>	12	Instruction on preservation, keeping, transportation and depreservation	<input type="checkbox"/>
4	Quality control tables for basic materials and welded joints (fuse welded joints)	<input type="checkbox"/>	13	Operating manual, including maintenance manual, instruction on installation, exploitation and maintenance	<input type="checkbox"/>
5	Copies of certificates for basic and welding materials	<input type="checkbox"/>	14	List of expendable materials for installation, putting into operation and into the warranty period of operation	<input type="checkbox"/>
6	Decision on use of imported products (component units, semi-finished products, etc.)	<input type="checkbox"/>			
7	Records, reports on performed inspections and tests	<input type="checkbox"/>	15	List of auxiliary equipment, appliances, tools for loading and unloading operations, installation, putting into operation, repairs, etc.	<input type="checkbox"/>
8	Quality Assurance Plans	<input type="checkbox"/>			
9	Documents on registration of non-conformities and adopted decisions (nonconformity reports, technical solutions)	<input type="checkbox"/>	16	Technical documentation and quality documentation for semi-finished goods, component units and spare parts	<input type="checkbox"/>

Authorized person of the manufacturer: _____
(signature) (surname and initials)

Authorized person of the manufacturer's QCD: _____
(signature) (surname and initials)

The products shall be presented: « ____ » _____ 20 ____ . at _____ .
Representative of _____
(name of the organization)

(date) (position) (signature) (surname and initials)

The Format of the Appendix to the Acceptance Inspection Notice

APPENDIX NOS _____ to the Acceptance Inspection Notice No. _____ dated “ ____ ” _____ 20____.
--

The products name and designation:					
TS/TA/TR:					
Quality plan:					
Safety class:			Quality assurance category:		
Quantity:					
	Serial no.	KKS code		Serial no.	KKS code
1			16		
2			17		
3			18		
4			19		
5			20		
6			21		
7			22		
8			23		
9			24		
10			25		
11			26		
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14			29		
15			30		

Authorized person of the manufacturer:

(signature)

(surname and initials)

Authorized person of the manufacturer's QCD:

(signature)

(surname and initials)

Representative of _____ (name of the organization)			
_____ (date)	_____ (position)	_____ (signature)	_____ (surname and initials)

**The standard scope of inspections when performing acceptance inspection
of the pumping equipment**

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	TS/TA/TR for the pump.
1.2	Pump general view drawing.
1.3	Pump assembly drawing.
1.4	Assembly drawing specification for pump.
1.5	Drawings of parts and assembly units, forming part of pump.
	Drawings of non-durables.
1.6	Table of basic metal quality control - TB-1.
1.7	Quality control table of welding materials, welded joints and weld overlays - TB-2.
1.8	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.9	Certificates for semi-finished products/materials and welding materials.
1.10	Pump certificate.
1.11	Operations manual for pump.
1.12	Certificate and operations manual of component parts (if any exist).
1.13	Non-conformance record documents and decisions made (if any exist).
1.14	Quality plan for pump.
1.15	Quality plan for component parts (if any exist).
1.16	Pump strength (abstract of calculation) and seismic resistance calculation.
1.17	Maintenance document list.
1.18	SPTA set list.
1.19	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.20	Decision on use of imported component parts, materials (semi-finished products) and (or) welding materials, documented and approved in conformity with the standard GD.AKU.7.4-02-02-0059 (for the pumping equipment, which were manufactured in the territory of the RF using imported component parts (semi-finished products) and (or) welding materials).
1.21	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.22	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Checking of formal correctness and content of supporting documentation
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation, documented by the enterprise following the conduct of operations, and in the equipment certificate.

No.	Description of inspection
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Compliance of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product certificates with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contract).
2.2	Data Sheet of pump
Controlled:	
2.2.1	Compliance of the Data sheet format with the established requirements.
2.2.2	<p>Availability of filled sections of the certificate and accuracy of its content in the part of conformity of:</p> <ol style="list-style-type: none"> 1) Specified manufacturing license number and date of its issue, name of the interregional territorial directorate of Rostekhnadzor, issuing the license. 2) Specified drawing number of the pump. 3) Specified pump brand. 4) Specified serial number. 5) Specified manufacturing dates, manufacturer's name and his address. 6) Specified name and address of the Supplier. 7) Specified name and address of the Supplier (Company). 8) Specified special coding (if available). 9) Specified safety class; 10) Specified seismic category. 11) Specified pump characteristics: <ul style="list-style-type: none"> - Pump pressure; - Maximum and nominal pump head; - Inlet pressure; - Design temperature; - Operating media; - Rated feed; - pressure and temperature of hydraulic testing of pump housing; - service life; - Life between intermediate overhauls and overhauls (repair frequency). 12) Conformance of the specified data on pump components: <ul style="list-style-type: none"> - in the filled-in Tables; - name of parts and assembly units; - Certificate number conform to presented certificates; - the semi-finished products and basic materials used meet the established requirements; - Record on tests performed for ICC (for austenite class steel) is present in the certificates. If there is no data about ICC in the certificate then the factory test protocol shall be presented. - The availability of the corresponding test protocols is monitored if data-requiring confirmation according to TB-1 for certificate data is absent in the certificate. <p>Note: if semi-finished products, purchased from unofficial dealer, are used, the availability of certificate data conformity Programs, concurred with GMO (Program shall include the list of tests for these semi-finished products), sampling certificate with the participation of the Representative of the Authorized organization for these semi-finished products and test Reports, in accordance with the above mentioned Program, are controlled in addition.</p>

No.	Description of inspection
	<p>13) Compliance of the specified data on welded joints:</p> <ul style="list-style-type: none"> - in the filled-in Tables; - Description of connected elements conform to DED; - category of welded joint or weld overlay conforms to DED and item 2.1 of PNAE G-7-010; - Welder's seal (notation) conforms to data, specified in the welders' licenses and in the orders for seal assignment; - Welding materials used conform to the table 1-9 PNAE G-7-009; - the scope of non-destructive testing conforms to the requirements of TB-2 and PNAE G-7-010 table 2-6 (the availability the leading material organization's report on the conformity of NDT procedures used and requirements for certification of controllers to the requirements of PNAE G-7-010 and unified non-destructive testing procedures are controlled in addition for the manufacturers of the imported pumps); - if the imported semi-finished products made of steel and (or) welding materials are used then the availability of the Decisions for use for them, documented, concurred and approved in accordance with standard GD.AKU.7.4-02-02-0059 is controlled in addition for the manufacturers of the imported pumps, and the availability of the leading material organization's report on the conformity of the characteristics of the grades of steel and (or) welding materials used to the grades of steel and (or) welding materials, specified in PNAE G-7-008, PNAE G-7-009, TS/TA/TR and quality control tables TB-1 and TB-2 is controlled for the manufacturers of pumps; - fittings and control instrumentation (section shall be filled in conformity with the fittings supplied using data sheets/certificates, besides the availability certificates on type confirmation of measuring instruments (in conformity with the Federal law No 102-FZ dated 26 June 2008) is controlled in addition for control instrumentation; - Information on the precious materials and non-ferrous metals and their alloys (hereinafter non-ferrous metals) is specified in accordance with GOST 2.608 "Procedure of recording information about precious materials in operation manuals" for precious materials and GOST 1639 "Scrap and wastes of non-ferrous metals and alloys". General technical specifications. Interstate council for standardization, metrology and certification" – for non-ferrous metals; - Total (design) weight of non-ferrous metals, and information on the location of constituent parts of the product that contain non-ferrous metals, are specified. The description of non-ferrous metals and their record sequence is according to GOST 1639. <p>14) Conformity of characteristics and information about product elements to:</p> <ul style="list-style-type: none"> - Requirements, specified in BDD (TR), TS/TA/TR and DED; - Protocols and reports following the control and tests (hydraulic tests, destructive and non-destructive testing, other types of control and tests), including test results of component parts made by the supplier of component parts or equipment manufacturer. <p>15) Conformity of the scope of tests performed and control to the requirements of DED, in particular, quality control tables TB-1 and TB-2. The notations (numbers) and dates of the documents (protocols, reports etc.), documented following the control and tests, shall conform to that given in the data sheet.</p> <p>16) Availability of information on fastening parts or references to the corresponding deliverables.</p> <p>17) Conformity of specified data about heat treatment of parts, assembly units and products to data, given in the furnace charts and heat treatment diagrams or documents of quality.</p> <p>18) Conformity of information on completeness to the requirements of TS/TA/TR.</p> <p>19) Availability of filled Report, including availability of the signatures of the Director and Chief Engineer of the enterprise, Head of QCD, manufacturer's seal and date of</p>

No.	Description of inspection
	documenting the data sheet. 20) Availability of the Guarantees (service life warranty) of the manufacturer and their compliance with the requirements of TS/TA/TR. 21) Availability of information on preservation and their compliance with the requirements of TR/TA/TS, DED. 22) Availability of information on the Compliance Assessment (indicating the number of the Quality Plan).
2.3	Documents recording nonconformities and decisions made
Controlled:	
2.3.1	For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3): - form of the Non-Conformities Report conforms to the standard GD.AKU.8.3-02-02-0051 of AKKUYU NÜKLEER ANONİM ŞİRKETİ; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.
2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Accompanying documents
Controlled:	
2.4.1	Compliance of the documents formats with the established requirements.
2.4.2	Completeness of the documents filling in.
2.4.3	Compliance of the information specified in the documents with the actual one.
2.5	Deliverables of technical control
Controlled:	
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior inspection of equipment at convenient spots
Controlled:	
3.1.1	Conformity of product appearance to the requirements of TS/TA/TR, DED.
3.1.2	Conformity of overall dimensions to the requirements of TS/TA/TR, DED.
3.1.3	Compliance of the connecting and (or) installation dimensions of the branch pipes with the requirements of TS/TA/TR, DED.
3.1.4	Conformity of branch pipe preweld beveling (if available) to the requirements of RD and DED.
3.1.5	Absence of defects on the product: dents on the casing, flattening of connecting branch butts, base metal damages in the form of burns, deep scratch marks, metal tear and other damages. Their linear dimensions (depth/width/length) exceed the values established in GOST/TS for metal (GOST, TS for metal are defined from TB-1 and certificate) and PNAE G-7-025 (section 4.4, if base members, manufactured using casting method, are available).
3.1.6	Absence of the traces of rust, uniformity and quality of painting, availability of measurement protocol of paint film thickness are checked.
3.1.7	For flanged bolted connections and caps established:

No.	Description of inspection
	<ul style="list-style-type: none"> - Availability of gaskets in the flanged connection made of material conforming to the requirements of engineering documentation; - Availability of fittings in conformity with the specification for the product and its correct installation.
3.1.8	Availability of caps for product internal volumes.
3.2	Exterior check of welded joints (if welding is available).
Controlled:	
3.2.1.	Absence of defects in welded joints according to PNAE G-7-010 (section 11.2), visible during visual examination: surface cracks of all types and directions; descaling; lapping; weld spatters; burn-through, blowholes, shrinkage cavities; undercuts; faulty fusion; clusters and non-isolated inclusions.
3.2.2	Conformity of joint displacement in abutting joints, height (depth) of low spot between the beads, their surface ripple, concavity of the joint root, isolated surface inclusions of welded joints to the requirements of PNAE G-7-010 (section 11.2).
3.2.3	Availability and conformity of labelling (seals) on welded joints (surfaced parts) to the requirements of the section 10 of PNAE G-7-009 and DED.
3.2.4	Availability and conformity of labelling (seals) on welded joints (surfacing parts) to the requirements of the section 10 of PNAE G-7-009.
3.2.5	<p>If there are unlabelled welded joints (deposits), the description of this case in DED and availability of product sketches (drawings) in the supporting documentation specifying the location of unlabelled welded joints and seals of welders, performing the welding (surfacing) is controlled.</p> <p>Note: thus, it must be considered that (in conformity with item 10.4 of PNAE G-7-009), if all the welded joints of the product are performed by one welder, then sealing (marking) of each welded joint is allowed not to be made. In this case, the welder's seal is placed near the nameplate or at other open section of the product (or welding assembly) and the place of sealing is enclosed in a readily visible frame, applied using indelible paint (the latter shall not spread on the product surface, washed by the coolant).</p>
2.6	<p>Compliance with the requirements of PNAE G-7-008 (items 2.4.3.3 and 2.4.3.4) that the distance between the edge of the butt weld joint of the equipment or piping and centre of the hole nearest to it shall be minimum 0.9 diameter of the hole on simultaneous observation of the following requirement: the distance between the edge of the fillet weld of branch pipe welding or other cylindrical hollow parts and edge of the nearest butt weld joint of the equipment shall simultaneously be less than the threefold design height of the fillet weld height and threefold nominal wall thickness of the welded part.</p> <p>Note: in accordance with item 2.4.3.5 of PNAE G-7-008 the reduction of the distances specified in items 2.4.3.3 and 2.4.3.4 is allowed (including the location of holes in the butt weld) on simultaneous observation of the following requirements:</p> <ul style="list-style-type: none"> - drilling of holes shall be made after heat treatment (if applicable) of butt-weld joint and its solid non-destructive testing using the methods, stipulated for welded joints of the corresponding category; drilling of holes is allowed to be made before heat treatment of the welded joint, if boring (drilling) of the hole is made with the removal of the weld root section after the welding of branch pipes (connecting branches) and performing heat treatment; in this case heat treatment of the butt-weld joints, where the holes are made for welding branch pipes, it is allowed to be combined with heat treatment (if applicable) of the fillet welds of branch pipe welding; - yield stress of the butt weld metal at design temperature shall be not less than the yield stress of the base metal (yield stresses are taken according to the standards or technical specifications for the materials and (or) Calculation code tables and quality parameter; if such information is not available in the specified documentation the use of certification data is allowed); this requirement is not mandatory if the branch pipes (connection branches) and tubes are welded without beading, if the stresses in the butt weld of the equipment or pipeline do not exceed the yield stresses of the weld and base metal at design temperature; - Internal surface of the holes shall be subject to liquid penetrant and magnetic particle test. <p>The specified requirements shall be specified in the design documents for the product.</p>
3.2.7	Meeting the requirements of PNAE G-7-008 (item 2.4.3.8) that the distance between the edges of the nearest corner fillet welds of branch pipes (connecting branches) to the

No.	Description of inspection
	<p>equipment shall be minimum three design heights of the corner weld or three nominal thicknesses of the walls of welded branch pipes or pipes. Note: in case of different values of these heights or thicknesses, their greatest value shall be taken for the purpose of this check. the requirements of this item is not applicable for stub-in of the tubes into tube sheets (installation grates) and headers, tube sheets of process channels, CPS channels and other channels.</p>
3.2.8	Conformity of welders' seals specified in the licenses and weld history sheets.
3.3	Product internal inspection.
Controlled:	
3.3.1	Absence of foreign objects, dirt, water inside the products.
3.3.2	Absence of base metal damage in the form of burns, traces of foreign object impact, machining defects, laminations, rust and other defects.
4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	
4.1	Product completion conformity to packing list and TS/T/TR.
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list, TS/TA/TR.
5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	
5.1	Product labelling (recording capacity) conformance to the requirements of OM, certificate, TS/TA/TR and PNAE G-7-008 (item 1.2.13).
5.2	Compliance of the serial number of products, year of manufacture, manufacturer's seal to the records in the Data Sheet.
5.3	Product branch pipes capped in conformity with the requirements of TS/TA/TR and packing instructions.
5.4	Compliance of product painting with the requirements of the agreement (contract) TS/TA/TR and OM ("Preservation" section).
5.5	Compliance of the product packing and preservation with the requirements of the agreement (contract), OM, TS/TA/TR and GOST 9.014.
5.6	The duration of temporary corrosion protection of products (according to the Data Sheet) are not less than that specified in the agreement (contract), TS/TA/TR, GOST 9.014.
5.7	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection of the piping components and skids

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	General view drawings (if available, for piping elements).
1.2	Assembly drawings (for piping skids).
1.3	Assembly drawing specification (for piping skids).
1.4	Drawings of parts and assembly units (for piping skids).
1.5	Table of basic metal quality control - TB-1.
1.6	Quality control table of welding materials, welded joints and weld overlays - TB-2.
1.7	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.8	Manufacturing certificate of parts and piping assembly units of nuclear power generating facility.
1.9	Strength calculation (abstract of calculation).
1.10	Manufacturing certificate of parts and piping assembly units of nuclear power generating facility (if available, for parts and assembly units forming part of the piping skid).
1.11	Certificates for semi-finished products/materials and welding materials.
1.12	Non-conformance records and decisions made (if any exist).
1.13	Quality plan for piping elements (skids).
1.14	Quality plan for component parts (if available, for parts and assembly units forming part of the piping skid).
1.15	Decision on use of imported component parts, materials (semi-finished goods) and (or) welding materials, documented, agreed and approved in conformity with the standard GD.AKU.7.4-02-02-0059 (for piping components and skids, which were manufactured in the territory of the RF using imported semi-finished products and (or) welding materials).
1.16	Certificates for the equipment and component parts (if the products are subject to statutory certification).
1.17	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Checking of formal correctness and content of supporting documentation
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation, documented by the enterprise following the conduct of operations, and in the certificate of manufacture of parts and assembly units of the NPP pipeline.
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial

No.	Description of inspection
	numbers and corresponding product certificate of manufacture with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contract).
2.2	Manufacturing certificate of parts and piping assembly units of nuclear power generating facility.
Controlled:	
2.2.1	Conformity of the Certificate of Manufacture form to the Supplement 4 PNAE G-7-008.
2.2.2	<p>Availability of filled sections of the manufacturing certificate (considering the comments in PNAE G-7-008 Supplement 5) and accuracy of its content in the part of conformity of:</p> <ol style="list-style-type: none"> 1) Specified manufacturing license number and date of its issue, name of the interregional territorial directorate of Rostekhnadzor, issuing the license. 2) Specified name of the manufacturer and his address. 3) Specified description of the piping as intended. 4) Specified serial number and (or) order. 5) Specified year of manufacture. 6) Specified operating medium. 7) Specified design pressure, MPa (kgf/cm²). 8) Specified design temperature, °C. 9) Specified group. 10) Conformance of specified data about pipes: <ul style="list-style-type: none"> - Table filled; - Description of the components conforms to DED and (or) presented certificates; - Certificate number conform to presented certificates; - Batch and melt numbers conform to that specified in the certificates; - semi-finished products used conform to the Table P9.1 PNAE G-7-0083. <p>Note: if semi-finished products, purchased from unofficial dealer, are used, the availability of certificate data conformity Programs, concurred with GMO (Program shall include the list of tests for these semi-finished products), sampling certificate with the participation of the Representative of the Authorized organization for these semi-finished products and test Reports, in accordance with the above mentioned Program, are controlled in addition.</p> <ul style="list-style-type: none"> - if the imported semi-finished products made of steel and (or) welding materials are used then the availability of the Decisions for use for them, documented, concurred and approved in accordance with standard GD.AKU.7.4-02-02-0059 is controlled in addition for the manufacturers of the imported piping components and skids, and the availability of the leading material organization's report on the conformity of the characteristics of the grades of steel and (or) welding materials used to the grades of steel and (or) welding materials, specified in PNAE G-7-008, PNAE G-7-009, TS/TA/TR and quality control tables TB-1 and TB-2 is controlled for the manufacturers of pumps; - Record on tests performed for ICC (for austenite class steel) is present in the certificates. If there is no data about ICC in the certificate then the factory test protocol shall be presented. - The availability of the corresponding test protocols is monitored if data-requiring confirmation according to TB-1 for certificate data is absent in the certificate. <p>Note: batch and melt number is filled for pipes made of austenitic class steel with outer diameter 57 mm and above and for pipes made of steel of other structural classes with outer diameter 108 mm and above, operating under pressure 3.93 MPa (40 kgf/cm) and above. For pipes of group B systems of the specified standard sizes the supporting documentation shall include metal quality control data (certificates) in the scope, stipulated by the standards or technical specifications.</p> 11) Conformance of specified data on shaped pieces (cast, welded, stamped, forged from sheet): <ul style="list-style-type: none"> - Table has been filled (if shaped pieces are available); - the materials used correspond to the Table P9.1 PNAE G-7-008

No.	Description of inspection
	<p>Note: for the pipes of group B systems made of austenitic class steel with the outer diameter 57 mm and above, and made of steel of other structural classes with outer diameter 108 mm and above, operating under pressure 3.93 MPa (40 kgf/cm) and above, the supporting documentation shall include metal quality control data (certificates) in the scope, stipulated by the engineering documentation.</p> <p>12) Conformance of specified data on welded joints:</p> <ul style="list-style-type: none"> - Table has been filled (if shaped pieces are available); - Description of connected elements conform to DED; - Category of welded joint or weld overlay conforms to DED and item 2.1 of PNAE G-7-010; - Welder's seal (notation) conforms to data, specified in the welders' licenses and in the orders for seal assignment; - Welding materials used conform to the table 1-9 PNAE G-7-009; - the scope of non-destructive testing conforms to the requirements of DED and PNAE G-7-010 table 2-6 (the availability the leading material organization's report on the conformity of NDT procedures used and requirements for certification of controllers to the requirements of PNAE G-7-010 and unified non-destructive testing procedures are controlled in addition for the imported piping components and skids manufacturers); - if the imported welding materials are used for the Russian manufacturers, then the availability of the Decisions for use for them, documented and approved in accordance with GD.AKU.7.4-02-02-0059 is additionally controlled, and the availability of the leading material organization's report on the conformity of the characteristics of the grades of welding materials used to the grades of welding materials, specified in PNAE G-7-009, and quality control tables is controlled for the imported piping components and skids manufacturers); - Designations (numbers) and dates of documents (protocols, reports etc.), documented following the control and tests conform to that presented; - data on heat treatment of pipes, fittings and welded joints is specified. <p>13) Conformity of specified hydraulic pressure test results to the hydraulic test Protocol, requirements of DED and section 5 PNAE G- 7-008.</p> <p>14) Availability of filled Report, including availability of signatures of the Director and Chief Engineer of the enterprise, QCD head, manufacturer's seal, and documentation date of certificate.</p> <p>15) Conformity of product characteristics and data on product elements to:</p> <ul style="list-style-type: none"> - Requirements, specified in BDD (TR), TS/TA/TR and DED; - Protocols and reports following control and tests (hydraulic tests, destructive and non-destructive testing, other types of control and tests), including test results of component parts, performed by the component part supplier or equipment manufacturer). <p>16) Conformity of the scope of tests performed and control to the requirements of DED, in particular, to the quality control tables TB-1 and TB-2. Designations (numbers) and dates of documents (protocols, reports etc.), documented following the control and tests, shall conform to that presented in the Certificate of Manufacture.</p> <p>17) Availability of information on fastening parts or references to the corresponding deliverables.</p> <p>18) Conformity of specified data about heat treatment of parts, assembly units and products to data, given in the furnace charts and heat treatment diagrams or documents of quality.</p> <p>19) Conformity of information on completeness to the requirements of TS/TA/TR.</p>
2.3	Documents recording nonconformities and decisions made
	Controlled:
2.3.1	<p>For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3):</p> <ul style="list-style-type: none"> - the format for the Non-Conformity Report is in accordance with GD.AKU.8.3-02-02-

No.	Description of inspection
	0051; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.
2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Accompanying documents
Controlled:	
2.4.1	Compliance of the documents formats with the established requirements.
2.4.2	Completeness of the documents filling in.
2.4.3	Compliance of the information specified in the documents with the actual one.
2.5	Deliverables of technical control
Controlled:	
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
Controlled:	
3.1.1	Conformity of product appearance to the requirements of DED and (or) OST.
3.1.2	Conformity of dimensions to the requirements of DED and (or) OST.
3.1.3	Compliance of the connecting and (or) installation dimensions of the branch pipes with the requirements of DED and (or) OST.
3.1.4	Conformity of branch pipe preweld beveling (if available) to the requirements of DED and (or) OST.
3.1.5	Absence of external damages on the product: dents on the lateral faces, flattening of butts, damages of base metal in the form of burns, deep scratch marks, metal tear and other damages. Their linear dimensions (depth/width/length) exceed the values established in GOST/TS for metal (GOST, TS for metal are defined from TB-1 and manufacturing certificate).
3.1.6	If flanged bolt plugs are available: - Gasket installed in flanged connection (material conforms to the requirements of DED); - Fastener installed in full scope and conforms to the product specification; - Ends of bolts/pins protrude from the nuts by 2-3 turns.
3.1.7	Availability of caps.
3.2	Exterior check of welded joints (if welding is available).
Controlled:	
3.2.1.	Absence of defects in welded joints according to PNAE G-7-010 (section 11.2), visible during visual examination: surface cracks of all types and directions; descaling; lapping; weld spatters; burn-through, blowholes, shrinkage cavities; undercuts; faulty fusion; clusters and non-isolated inclusions.
3.2.2	Conformity of joint displacement in butt joints, indentation height (depth) between beads, feather formation, root concavity, isolated surface inclusions of welded joints to the requirements of PNAE G-7-010 (section 11.2).
3.2.3	Availability and conformity of labelling (seals) on welded joints (surfaced parts) to the

No.	Description of inspection
	requirements of the section 10 of PNAE G-7-009 and DED.
3.2.4	Availability and conformity of labelling (seals) on welded joints (overlay parts) to the requirements of the section 10 of PNAE G-7-009. The conformity of seal number on the product to the number specified in the section “Data on welded joints” manufacturer’s certificate.
3.2.5	<p>If there are unlabelled welded joints (deposits), the description of this case in DED and availability of product sketches (drawings) in the supporting documentation specifying the location of unlabelled welded joints and seals of welders, performing the welding (surfacing) is controlled</p> <p>Note: thus, it must be considered that (in conformity with item 10.4 of PNAE G-7-009), if all the welded joints of the product are performed by one welder, then sealing (marking) of each welded joint is allowed not to be made. In this case, the welder’s seal is placed near the nameplate or at other open section of the product (or welding assembly) and the place of sealing is enclosed in a readily visible frame, applied using indelible paint (the latter shall not spread on the product surface, washed by the coolant).</p>
2.6	<p>Meeting requirements of PNAE G-7-008 (requirements to the design and location of weld seams):</p> <ul style="list-style-type: none"> - requirements of sub-items 2.3.3-2.3.5, 2.4.2.5 to the bends/bent branches has been complied with; - Requirements of item 2.3.6 to the location of holes in the pipelines has been complied with; - But welded joints (if they exist) are made with full penetration (item 2.4.1.2); - Welded tubes are manufactured maximum from two sectors (with external diameter up to 920 mm) and maximum of three sectors (with external diameter up to 920 mm). The central angle of each sector is minimum 90° (item 2.4.2.1); - No welds on tube sections, subject to bending (2.4.2.4). - If welded curvatures are available, within the curvilinear section maximum one transverse ring joint is available (item 2.4.2.5); - If sector bends, manufactured from welded tubes, are available the distance between the matings of transverse ring weld of the bend with the longitudinal and spiral seams of the connected sectors or tubes shall be minimum 100 mm, besides, the specified distance is measured between the mating points of the corresponding seam axes (item 2.4.2.6). - Absence of the alignment of longitudinal seal axes of two neighbouring parts in the transverse butt-welds of parts (assembly units) with longitudinal welded joints. The axes of the specified seams shall be displaced with respect to one another by the distance, constituting minimum three-fold minimum thickness of the thicker walled from among the connected parts, but minimum by 100 mm (latter condition not applicable for welded joints of parts with nominal outer diameter less than 100 mm) - item 2.4.3.1. <p>Note: for cylindrical parts (assembly units) with longitudinal welds, made using automatic welding, it is allowed to reduce the specified distance (including the location of longitudinal welds of the connected parts along one axis) on condition of X-ray or ultrasound, as well as liquid penetrant and magnetic particle test of the transition and crossing sections of longitudinal and transverse welded joints (ultrasound test of welded joints of parts made of austenitic class steel is not obligatory).</p> <ul style="list-style-type: none"> - compliance with the requirements of items 2.4.3.3 and 2.4.3.4 that the distance between the edge of the butt weld joint of the equipment or piping and centre of the hole nearest to it shall be minimum 0.9 diameter of the hole on simultaneous observation of the following requirement: the distance between the edge of the fillet weld of branch pipe welding or other cylindrical hollow parts and edge of the nearest butt weld joint of the equipment shall simultaneously be less than the threefold design height of the fillet weld height and threefold nominal wall thickness of the welded part. <p>Note: in accordance with item 2.4.3.5 of PNAE G-7-008 the reduction of the distances specified in items 2.4.3.3 and 2.4.3.4 is allowed (including the location of holes in the butt weld) on simultaneous observation of the following requirements:</p>

No.	Description of inspection
	<p>- drilling of holes shall be made after heat treatment (if applicable) of butt-weld joint and its solid non-destructive testing using the methods, stipulated for welded joints of the corresponding category; drilling of holes is allowed to be made before heat treatment of the welded joint, if boring (drilling) of the hole is made with the removal of the weld root section after the welding of branch pipes (connecting branches) and performing heat treatment; in this case heat treatment of the butt-weld joints, where the holes are made for welding branch pipes, it is allowed to be combined with heat treatment (if applicable) of the fillet welds of branch pipe welding;</p> <p>- Yield stress of the butt weld metal at design temperature shall be not less than the yield stress of the base metal (yield stresses are taken according to the standards or technical specifications for the materials and (or) Calculation code tables and quality parameter; if such information is not available in the specified documentation the use of certification data is allowed); this requirement is not mandatory if the branch pipes (connection branches) and tubes are welded without beading, if the stresses in the butt weld of the equipment or pipeline do not exceed the yield stresses of the weld and base metal at design temperature;</p> <p>- Inner surface of the holes shall be subject to liquid penetrant or magnetic particle test.</p> <p>The requirements specified shall be stated in the design document for the product.</p> <p>- Distance between the axes of the neighbouring butt welds shall be minimum three fold of the nominal wall thickness of the welded parts (for greater thickness), but minimum 100 mm for products, having nominal outer diameter above 100 mm, and no less than the specified diameter at its value up to 100 mm inclusive (item 2.4.3.6);</p> <p>- Distance between the edges of the nearest corner welds of branch pipe (connecting branch) welding to the pipes shall constitute minimum threefold of the design heights of the corner weld and threefold nominal thicknesses of the walls of the welded branch pipes and tubes. For different values of the specified heights or thicknesses it is required to take their greater value (item 2.4.3.8);</p> <p>- Distance from the connection branch weld edge to the nearest pipe transverse weld during welding of the connecting branches to the compartments of measuring diaphragms shall be simultaneously equal to minimum three-fold thickness of the welded connecting branch and threefold design height of the corner weld (item 2.4.3.7);</p> <p>Note: it is allowed to locate the connecting branches with outer diameter up to 30 mm near the thermal influence area of the ring welds of measuring units with nozzles and diaphragms.</p> <p>- Distance from the butt weld edge to the start of the curvilinear section of the bend on the pipes with nominal outer diameter 100 mm and above shall be equal to minimum 100 mm, and for pipes with nominal outer diameter up to 100 mm not below the nominal pipe diameter. The reduction of the direct section of the turn (offset), and location of transverse weld on the boundary of direct and curvilinear sections (item 2.4.3.214) is allowed for stamped, forged and stamp-welded curvatures (offsets), bent tubes of heat exchange surfaces and sharp turns;</p> <p>Note: when welding parts (assembly units) to the pipelines, whose straight runs have limited length or are absent (T-pieces, valves, sharp turns, stamped and stamp-welded increasers etc.), the requirements of items 2.4.3.1-2.4.3.13 of PNAE G-7-008 are not mandatory on condition of assuring the possibility of performing local heat treatment or (and) ultrasound control of welded joints (item 2.4.3.14).</p> <p>- When stubbing-in branch pipes (connecting branches) into pipes made of pipes with longitudinal or spiral seams, the exit of weld seams of pipes to the corner (upper and lower) intersection points forming the tube and connecting pipe. The minimum distance measured on the outer surface from the specified points to the axes of the weld seams of the tubes shall be minimum 100 mm (item 2.4.3.15).</p>
3.2.7	Conformity of welders' seals specified in the licenses and weld history sheets.
3.3	Product internal inspection.
Controlled:	
3.3.1	Absence of foreign objects, dirt, water inside the products.
3.3.2	Absence of base metal damage in the form of burns, traces of foreign object impact, machining defects, laminations, rust and other defects.
4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	

No.	Description of inspection
4.1	Product completion conformity to packing list and TS/T/TR.
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list, TS/TA/TR.
5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	
5.1	Product labelling (recording capacity) conformance to the requirements of DED/OST.
5.2	Conformity of the serial number of products, year of manufacture, manufacturer's seal to the records in the manufacturing certificate.
5.3	The product branch pipes capped in conformity with the requirements of DED/OST and packing instructions.
5.4	Conformity of product painting to the requirements of DED/OST.
5.5	Compliance of the product packing and preservation with the requirements of the agreement (contract) DED/OST and GOST 9.014.
5.6	The duration of temporary corrosion protection of products are not less than that specified in the agreement (contract) GOST 9.014.
5.7	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection of the pressure heat exchange equipment/vessels

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	Technical specifications or TA for heat exchange equipment/vessel.
1.2	General view drawing of heat exchange equipment/vessel
1.3	Assembly drawing of heat exchange equipment/vessel.
1.4	Assembly drawing specification for heat exchange equipment/vessel.
1.5	List of instrumentation, meters, alarm and automation devices, included in the delivery of heat exchange equipment/vessel, and diagram or instructions for their installation.
1.6	Drawings of parts and assembly units, included in the heat exchange equipment/vessel.
1.7	Table of basic metal quality control - TB-1.
1.8	Quality control table of welding materials, welded joints and weld overlays - TB-2.
1.9	Packing list, if stipulated by the agreement (contract) and product packing is checked during acceptance inspection
1.10	Certificates for semi-finished products/materials and welding materials.
1.11	Certificate for heat exchange equipment/vessel.
1.12	Operations manual for heat exchange equipment/vessel.
1.13	Certificate and operation manual of component parts (if available)
1.14	Non-conformance records and decisions made (if any exist).
1.15	Quality plan for heat exchange equipment/vessel.
1.16	Quality plan for component parts (if any exist).
1.17	Strength (abstract of calculation) and seismic resistance calculation of heat exchange equipment/vessel.
1.18	Maintenance document list.
1.19	SPTA set list.
1.20	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.21	Decision on use of imported component parts, materials (semi-finished products) and (or) welding materials, documented, concurred and approved in conformity with AKKUYU NUCLEAR JOINT STOCK COMPANY standard GD.AKU.7.4-02-02-0059-2015 (for electrical equipment, which were manufactured using imported semi-finished items and (or) welding materials).
1.22	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.23	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Checking of formal correctness and content of supporting documentation
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation,

	documented by the enterprise following the conduct of operations, and in the data sheet for the heat exchange equipment/vessel.
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product certificates with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contract).
2.2	Certificate for heat exchange equipment/vessel.
	Controlled:
2.2.1	Conformity of certificate form to the Supplement 3 PNAE G-7-008.
2.2.2	<p>Availability of filled sections of the certificate and accuracy of its content in the part of conformity of:</p> <ol style="list-style-type: none"> 1) Specified manufacturing license number and date of its issue, name of the interregional territorial directorate of Rostekhnadzor, issuing the license. 2) Specified description of the heat exchange equipment/vessel. 3) Specified registration number (assigned by the interregional territorial directorate of Rostekhnadzor (on registration of the heat exchange equipment/vessel at this authority) or enterprise-owner (on registration of the heat exchange equipment/vessel at this enterprise)). 4) Specified: <ul style="list-style-type: none"> - Name and address of the manufacturer; - Name and address of the Supplier; - Serial number; - Year of manufacture; - Drawing key; - Equipment group. 5) Specified characteristics of heat exchange equipment/vessel (data shall coincide with data in TS/TA/TR and DED): <ul style="list-style-type: none"> - Design pressure; - Design temperature of walls; - hydraulic (pneumatic) pressure test pressure, description of test medium, test duration and temperature of (data, specified in the section shall conform to HT protocol, requirements of TS/TA and DED, and section 5 PNAE G- 7008); - Minimum permissible wall temperature during hydraulic (pneumatic) tests after manufacture; - Operating medium; - Inner volume; - Equipment weight without operating medium; - service life; - Life between overhauls (repair frequency). 6) Conformance of specified data on basic elements of heat exchange equipment/vessel and materials: <ul style="list-style-type: none"> - Table has been filled; - Description of parts and assembly units conform to DED; - Certificate number conform to the certificates presented; - Grades of materials, type of blanks, melt numbers and numbers of semi-finished items (batches), used in the manufacture of parts and assembly units of the heat exchange

<p>equipment/vessel, conform to that specified in the certificates;</p> <ul style="list-style-type: none">- semi-finished products used conform to the Table P 9.1 PNAE G-7-008; <p>if imported steel is used then the availability of the Decisions for their use, documented, concurred and approved in conformity AKKUYU NÜKLEER ANONİM ŞİRKETİ standard GD.AKU.7.4-02-02-0059 is controlled in addition for the Russian manufacturers, and the availability of the leading material organization's report on the conformity of the characteristics of the grades of steel used to the grades of steel, specified in PNAE G-7-008, drawings and control tables is controlled for the heat exchange equipment/vessel manufacturers;</p> <ul style="list-style-type: none">- Record on tests performed for ICC (for austenite class steel) is present in the certificates. If there is no data about ICC in the certificate then the factory test protocol shall be presented.- Specified scope of base metal control conforms to TB-1;Remark: Note: the availability of the corresponding test reports is monitored if data-requiring confirmation according to TB-1 for certificate data is absent in the certificate. if semi-finished products, purchased from unofficial dealer, are used, the availability of certificate data conformity Programs, concurred with GMO (Program shall include the list of tests for these semi-finished products), sampling certificate with the participation of the Representative of the Authorized organization for these semi-finished products and test Reports, in accordance with the above mentioned Program, are controlled in addition.- Information of fastening parts or reference to the document on quality for the given parts, included in the supporting document set, have been specified. <p>7) Conformity of specified data on welded joints and surfacing (information shall be specified in the scope, established by the quality control table of welded materials, welded joints and surfacing – TB-2:</p> <ul style="list-style-type: none">- Table has been filled.- Description of connected elements conform to TB-2;- Welded joint and surfacing category conform to TB-2 and item 2.1 of PNAE G-7-010.- Numbers of welded joints and surfacing, specified in the table, conform to TB-2 and welded joint diagram;- Welder's seal (notation) conforms to data, specified in the welder's certificates and in the orders for assignment of seal.- Description and grade of welded materials conform to that specified in the section "Data on basic elements of vessels and materials";- Welding materials used conform to the tables 1-9 of PNAE G-7-009;- the scope of non-destructive testing conforms to the requirements of DED and PNAE G-7-010 table 2-6 (the availability the leading material organization's report on the conformity of NDT procedures used and requirements for certification of controllers to the requirements of PNAE G-7-010 and unified non-destructive testing procedures are controlled in addition for the heat exchange equipment/vessel manufacturers;- if the imported welding materials are used for the Russian manufacturers then the availability of the Decisions for use for them, documented, agreed and approved in conformity with the corresponding AKKUYU NÜKLEER ANONİM ŞİRKETİ standard GD.AKU.7.4-02-02-0059 is additionally controlled, and the availability of the leading material organization's report on the conformity of the characteristics of the grades of welding materials used to the grades of welding materials, specified in PNAE G-7-009, and quality control tables is controlled for the heat exchange equipment/vessel manufacturers;- Notations (numbers) and dates of documents (protocols, reports etc.), documented following the control and tests conform to that presented. <p>8) Conformity of specified information on heat treatment of parts, assembly units and products:</p> <ul style="list-style-type: none">- Table has been filled;- Description of parts and assembly units conform to DED;
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	<p>- data on the heat treatment conforms to data given in the furnace charts and heat treatment diagrams or documents on quality (for component parts purchased).</p> <p>9) Conformity of specified data about valves and safety valves:</p> <ul style="list-style-type: none"> - Tables have been filled; - Information, given in the tables conform to information, given in the data sheets for the valves and requirements of TS/TA/TR heat exchange equipment/vessel; - Forms of data sheets for the valves conform to the requirements of NP-068; - Safety class and group of the valve conform to the safety class and group of the heat exchange equipment/vessel. <p>10) The results of hydraulic (air) tests conform to the enclosed test protocol and requirements of TS/TA/TR, section 3.2 of the Data sheet for the valves, Section 5 PNAE G-7-008.</p> <p>11) Information on the precious materials and non-ferrous metals and their alloys (hereinafter non-ferrous metals) is specified in accordance with GOST 2.608 “Procedure of recording information about precious materials in operation manuals” for precious materials and GOST 1639 “Scrap and wastes of non-ferrous metals and alloys”. General technical specifications. Interstate council for standardization, metrology and certification” – for non-ferrous metals.</p> <p>12) Total (design) weight of non-ferrous metals, and information on the location of constituent parts of the product that contain non-ferrous metals, are specified. The description of non-ferrous metals and their record sequence is according to GOST 1639.</p> <p>13) Availability of filled Report, including availability of the signatures of the Director and Chief Engineer of the enterprise, Head of QCD, manufacturer’s seal and date of documenting the data sheet.</p> <p>14) Conformity of characteristics and information about product elements to:</p> <ul style="list-style-type: none"> - Requirements, specified in BDD (TR), TS/TA/TR and DED; - Protocols and reports following the control and tests (hydraulic tests, destructive and non-destructive testing, other types of control and tests), including test results of component parts made by the supplier of component parts or equipment manufacturer. <p>15) Conformity of the scope of tests performed and control to the requirements of DED, in particular, quality control tables TB-1 and TB-2. The notations (numbers) and dates of the documents (protocols, reports etc.), documented following the control and tests, shall conform to that given in the data sheet.</p> <p>16) Availability of information on fastening parts or references to the corresponding deliverables.</p> <p>17) Conformity of specified data about heat treatment of parts, assembly units and products to data, given in the furnace charts and heat treatment diagrams or documents of quality.</p> <p>18) Conformity of information on completeness to the requirements of TS/TA/TR.</p> <p>19) Availability of the Guarantees (service life warranty) of the manufacturer and their compliance with the requirements of TS/TA/TR.</p> <p>20) Availability of information on preservation and their compliance with the requirements of TR/TA/TS, DED.</p> <p>21) Availability of information on the Compliance Assessment (indicating the number of the Quality Plan).</p>
2.3	Documents recording nonconformities and decisions made
	Controlled:
2.3.1	<p>For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3):</p> <ul style="list-style-type: none"> - the format for the Non-Conformity Report is in accordance with GD.AKU.8.3-02-02-0051; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of

	non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.
2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Accompanying documents
	Controlled:
2.4.1	Compliance of the documents formats with the established requirements.
2.4.2	Completeness of the documents filling in.
2.4.3	Compliance of the information specified in the documents with the actual one.
2.5	Deliverables of technical control
	Controlled:
2.5	Deliverables of technical control
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
	Controlled:
3.1.1	Conformity of product appearance to the requirements of TS/TA/TR, DED.
3.1.2	Conformity of overall dimensions to the requirements of TS/TA/TR, DED.
3.1.3	Location of branch pipes on heat exchange equipment/vessel conforms to the requirements of TS/TA/TR, DED.
3.1.4	Compliance of the connecting and (or) installation dimensions of the branch pipes with the requirements of TS/TA/TR, DED.
3.1.5	Conformity of branch pipe preweld beveling (if available) to the requirements of RD and DED.
3.1.6	Absence of external damages on the product: dents on the lateral faces, flattening of connecting branch butts, gap clearances (warping) of bottom and roof does not exceed the required values in the drawings (if there are any) of base metal damages in the form of burns, deep scratch marks, metal tear and other damages. Their linear dimensions (depth/width/length) exceed the values established in GOST/TS for metal (GOST, TS for metal are defined from TB-1 and certificate).
3.1.7	For flanged bolted connections of bottom and roof: - Gasket installed in flanged connection (material conforms to the requirements of DED); - Fastener installed in full scope and conforms to the product specification; - Ends of bolts/pins extend from the bolts by 2-3 turns.
3.2	Exterior inspection of welded joints (if welding is available)
	Controlled:
3.2.1.	Absence of defects in welded joints according to PNAE G-7-010 (section 11.2), visible during visual examination: surface cracks of all types and directions; descaling; lapping; weld spatters; burn-through, blowholes, shrinkage cavities; undercuts; faulty fusion; clusters and non-isolated inclusions.
3.2.2	Conformity of joint displacement in abutting joints, height (depth) of low spot between the beads, their surface ripple, concavity of the joint root, isolated surface inclusions of welded joints to the requirements of PNAE G-7-010 (section 11.2).
3.2.3	Availability and conformity of labelling (seals) on welded joints (surfaced parts) to the requirements of the section 10 of PNAE G-7-009 and DED.

3.2.4	Availability and conformity of labelling (seals) on welded joints (surfaced parts) to the requirements of the section 10 of PNAE G-7-009. Conformity of seal numbers on the product to the numbers specified in TB-2, diagram of welded joints and data sheet section “Data on welded joints and surfacing”.
3.2.5	<p>If there are unlabelled welded joints (deposits), the description of this case in DED and availability of product sketches (drawings) in the supporting documentation specifying the location of unlabelled welded joints and seals of welders, performing the welding (surfacing) is controlled.</p> <p>Note: thus, it must be considered that (in conformity with item 10.4 of PNAE G-7-009), if all the welded joints of the product are performed by one welder, then sealing (marking) of each welded joint is allowed not to be made. In this case, the welder’s seal is placed near the nameplate or at other open section of the product (or welding assembly) and the place of sealing is enclosed in a readily visible frame, applied using indelible paint (the latter shall not spread on the product surface, washed by the coolant).</p>
2.6	<p>Meeting requirements of PNAE G-7-008 (requirements to the design and location of welds):</p> <p>1) Butt welds (if they exist) are executed with full penetration.</p> <p>2) Pipe shell:</p> <p>2.1) Pipe shell has been manufactured maximum of two sectors (at outer diameter up to 920 mm) and maximum of three sectors (at outer diameter up to 920 mm). The central angle of each sector shall be minimum 90° (item 2.4.2.1);</p> <p>2.2) If longitudinal and transverse welds are available on the pipe shell, the axes of the longitudinal welded joints are displaced in relation to one another (item 2.4.3.1):</p> <ul style="list-style-type: none"> - When outer diameter of the pipe shell is more than 100 mm – by the distance, constituting minimum threefold nominal thickness of the thicker of the connected parts, but minimum by 100 mm; - when the outer diameter of the pipe shell is less than 100 mm – by the distance, constituting minimum threefold nominal thickness of the thicker of the connected parts. <p>Note: the specified requirement is not mandatory, if the longitudinal seams have been made using automatic welding, besides control of the transition tubes or intersection of the longitudinal and transverse welded joints have been made:</p> <ul style="list-style-type: none"> - X-ray; - Ultrasound (for welded joints of parts made of austenite class steel it is not mandatory); - Liquid penetrant or magnetic particle. <p>3) Ends, caps:</p> <p>3.1) When welding ends or caps made of several parts (sheets) with the location of welded seams along the chord the distance from the outer seam edge to the end or cap diameter parallel to the chord is minimum 0,2 of the nominal internal diameter of the end or cap (item 2.4.3.2).</p> <p>3.2) If circumferential weld is available, the distance between the outer edge of the circumferential weld at the ends and caps (with the exception of spherical and dish-shaped) and centre of the end or cap is maximum 0.25 of the nominal diameter of the end or cap, and the minimum distance between the edges of two neighbouring radial or meridian welds shall be minimum threefold nominal thickness of the end or cap, but maximum 100 mm (item 2.4.3.2).</p> <p>Note: the requirement for location of the circumferential weld is not applicable to welding the seams of ends and caps to the flanges and pipe shells.</p> <p>4) Welding and location of connecting branches, hatches:</p> <p>4.1) Compliance with the requirements of items 2.4.3.3 and 2.4.3.4 that the distance between the edge of the butt weld joint of the equipment or piping and centre of the hole nearest to it shall be minimum 0.9 diameter of the hole on simultaneous observation of the following requirement: the distance between the edge of the fillet weld of branch pipe welding or other cylindrical hollow parts and edge of the nearest butt weld joint of the</p>

equipment shall simultaneously be less than the threefold design height of the fillet weld height and threefold nominal wall thickness of the welded part.

Note: in accordance with item 2.4.3.5 of PNAE G-7-008 the reduction of the distances specified in items 2.4.3.3 and 2.4.3.4 is allowed (including the location of holes in the butt weld) on simultaneous observation of the following requirements:

- drilling of holes shall be made after heat treatment (if applicable) of butt-weld joint and its solid non-destructive testing using the methods, stipulated for welded joints of the corresponding category; drilling of holes is allowed to be made before heat treatment of the welded joint, if boring (drilling) of the hole is made with the removal of the weld root section after the welding of branch pipes (connecting branches) and performing heat treatment; in this case heat treatment of the butt-weld joints, where the holes are made for welding branch pipes, it is allowed to be combined with heat treatment (if applicable) of the fillet welds of branch pipe welding;

- yield stress of the butt weld metal at design temperature shall be not less than the yield stress of the base metal (yield stresses are taken according to the standards or technical specifications for the materials and (or) Calculation code tables and quality parameter; if such information is not available in the specified documentation the use of certification data is allowed); this requirement is not mandatory if the branch pipes (connection branches) and tubes are welded without beading, if the stresses in the butt weld of the equipment or pipeline do not exceed the yield stresses of the weld and base metal at design temperature;

- Inner surface of the holes shall be subject to liquid penetrant or magnetic particle test.

The specified requirements shall be specified in the design documentation for the product.

4.2) Distance between the axes of neighbouring transverse butt welds on cylindrical and conical parts shall be minimum three-fold nominal wall thickness of the welded parts (for greater thickness), but minimum 100 mm for parts, having nominal outer diameter above 100 mm in the welded joint area, and no less than the specified diameter at its value up to 100 mm inclusive (item 2.4.3.6);

Note: the specified requirement is not applicable for welded seams of welding pipes to the branch pipes and valves, if the specified branch pipes were subject to heat treatment as part of the equipment and valves, and for welded joints for welding tube sheets and elements of ring type, having thickness more than two times exceeding the pre-weld bead forming thickness.

4.3) Distance between the edges of the nearest corner welds of branch pipe (connecting branch) welding to the pipes shall constitute minimum threefold design heights of the corner weld or three nominal wall thickness of the welded branch pipes or tubes. For different values of the specified heights or thicknesses it is required to take their greater value (item 2.4.3.8);

4.4) Distance from the edge of connecting branch weld seam to the edge of the nearest transverse weld seam of the pipe during welding of the connecting branches to the compartments of measuring diaphragms shall be simultaneously equal to minimum threefold wall thickness of the welded connecting branch and threefold design height of the corner weld (item 2.4.3.7);

Note: it is allowed to locate the connecting branches with outer diameter up to 30 mm near the thermal influence area of the ring welds of measuring units with nozzles and diaphragms.

4.5) Distance from the edge of the welded joint of the connecting branch to the edge of the nearest transverse weld of the tube during welding of connecting branches to the compartments of measuring diaphragms is simultaneously equal to minimum threefold wall thickness of the welded connecting branch and threefold design height of the corner weld (item 2.4.3.7).

Note: it is allowed to locate the connecting branches with outer diameter up to 30 mm near the thermal influence area of the ring welds of measuring units with nozzles and diaphragms.

4.6) Distance between the edges of nearest corner welds of welding branch pipes (connecting branches) or pipes to the equipment or pipes is equal to minimum threefold design heights of the corner weld or three nominal wall thicknesses of the welded branch pipes or tubes. For different values of the specified heights or thicknesses it is required to take their greater value (item 2.4.3.8).

Note: the requirements of this item is not applicable for stub-in of the tubes into tube sheets (installation grates) and headers, tube sheets of process channels, CPS channels and other channels.

4.7) When welding flat parts not pressure loaded to the surfaces of equipment and pipes the distance between the edge of corner weld of welding these parts and edge of the

	<p>nearest butt weld of the equipment or pipe , and between the edges of the corner welds of the nearest welded parts is equal to minimum three-fold design (highest) heights of the corner welds (item 2.4.3.9)</p> <p>Note: when welding parts and devices inside (outside) the housing, it is allowed to have an intersection of butt welds of the equipment with the fillet welds with a design height up to 0.5 of nominal wall thickness of the housing, but not more than 10 mm.</p> <p>4.8) The distance between the weld edge of pipe butt weld with branch pipe (connecting branch) of the equipment and weld edge of the nearest butt weld on the pipe (i.e. branch pipe length) is equal to minimum 100 mm for pipes with nominal outer diameter above 100 mm and no less than nominal outer diameter for pipes of lesser diameter (2.4.3.10).</p> <p>Note: when welding parts (assembly units) to equipment or pipes, whose linear sections have restricted length or absent (T-pipes, valves, sharply bent turns, stamped and stamp-welded transitions etc.), the requirements of items 2.4.3.1 – 2.4.3.13 are not mandatory on condition of performing local heat treatment or (and) ultrasound test of the welded joints.</p>
3.2.7	Conformity of welders' seals specified in the licenses and weld history sheets.
3.3	Product internal inspection
	Controlled:
3.3.1	Absence of foreign objects, dirt, water inside the products.
3.3.2	Absence of base metal damage in the form of burns, traces of foreign object impact, defects of machining work, laminations, rust and other defects.
4	Completion and equipment and SPTA quantity conformance inspection
	Controlled:
4.1	Product completion conformity to packing list and TS/TA/TR
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list.
5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
	Controlled:
5.1	Product labelling (recording capacity) compliance with the requirements of PM, Data Sheet, TS/TA/TR and PNAE G-7-008 (item 1.2.13).
5.2	Compliance of the serial number of products, year of manufacture, manufacturer's seal to the records in the Data Sheet.
5.3	Product branch pipes capped in conformity with the requirements of TS/TA/TR and packing instructions.
5.4	Compliance of product painting with the requirements of the agreement (contract) TS/TA/TR and OM ("Preservation" section).
5.5	Compliance of the product packing and preservation with the requirements of the agreement (contract), OM, TS/TA/TR and GOST 9.014.
5.6	The duration of temporary corrosion protection of products (according to the Data Sheet) does not exceed that one specified in the agreement (contract), GOST 9.014.
5.7	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection of piping valves

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	Technical specifications or TZ for piping valve.
1.2	General view drawing of piping valve.
1.3	Assembly drawing of piping valve.
1.4	Assembly drawing specification for piping valve.
1.5	Drawings of parts and assembly units, included in piping valve.
1.6	Table of basic metal quality control - TB-1.
1.7	Quality control table of welding materials, welded joints and weld overlays - TB-2.
1.8	Certificates for semi-finished products/materials and welding materials.
1.9	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.10	Piping valve certificate. Note: The Data sheet shall be delivered with each valve product with DN > 150 and with each safety valve (with each main and pilot valve for POSV) independent of DN. For the valve DN < 150 it is allowed to document one certificate for the batch of products in the quantity up to 50 pcs.
1.11	Operation manual for piping valve.
1.12	Certificate and operation manual of component parts (if any exist).
1.13	Non-conformance record documents and decisions made (if any exist).
1.14	Quality plan for piping valve.
1.15	Quality plan for component parts (if any exist).
1.16	Piping valve strength (abstract of calculation) and seismic resistance calculation.
1.17	Maintenance document list.
1.18	SPTA set list.
1.19	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.20	Decision on use of imported component parts, materials (semi-finished products) and (or) welding materials, documented, agreed and approved in accordance with AKKUYU NÜKLEER ANONİM ŞİRKETİ standard GD.AKU.7.4-02-02-0059 (for piping valves, which were manufactured in the territory of the RF using imported component parts, semi-finished products and (or) welding materials).
1.21	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.22	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Verification of the accompanying documentation issuance and content correctness.
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation, documented by the enterprise following the conduct of operations, and in the pipeline

	valves data sheet.
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product data sheets with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contracts).
2.2	Valve data sheet
Controlled:	
2.2.1	Conformity of certificate form to the Supplement 15 NP-068.
2.2.2	<p>Availability of filled sections of the certificate and accuracy of its content in the part of conformity of:</p> <p>1) Specified manufacturing license number and date of its issue, name of the interregional territorial directorate of Rostekhnadzor, issuing the license.</p> <p>2) Specified:</p> <ul style="list-style-type: none"> - Product name; - Drawing notation; - TS/TA/TR designation; - Manufacturer's name and address; - Safety class and valve group; - Class notation; - Serial number; - Nominal diameter (DN); - Life between intermediate overhauls and overhauls, or for opening and closing cycles. <p>3) Specified valve characteristics (data shall coincide with data given in TS/TA /TR and DED):</p> <ul style="list-style-type: none"> - Description of operating medium; - Rated pressure; - Rated temperature; - Operating pressure; - Operating temperature; - service life; - Valve response (time for opening and closing). <p>4) Specified drive characteristics (for motor operated valves, data shall coincide with the drive certificate and data, specified on its labelling):</p> <ul style="list-style-type: none"> - Drive type; - Drawing notation; - Drive version; - Serial number; - Transmission ratio; - Efficiency; - Maximum torque. <p>Note: in the data sheet in product characteristics:</p> <ul style="list-style-type: none"> - the actuation (opening) pressure, reverse seating pressure (from spring), the spring set range, gas (liquid) discharge coefficient, valve cross-sectional area shall be specified in addition in the data sheet for safety valves or the dependency of flow rate from pressure differential shall be given; - The conditional flow rate coefficient or flow characteristics shall be specified in addition for control valves.

- 5) Specified results of hydraulic tests conform to the enclosed test protocol and requirements of TS/TA/TR and section 5 of PNAE G-7-008.
- 6) Specified results of valve leak tests conform to the enclosed test report, leaks conform to the requirements of TS/TA/TR.
- 7) Information specified on main and fastening parts (including information about their surfacing):
- Table has been filled.
 - Description of parts and assembly units conform to DED;
 - Certificate number conform to the certificates presented;
 - semi-finished products used conform to the Table P 9.1 of PNAE G-7008 and Supplement 11-12 NP-068;
 - if imported steel (with the exception of that specified in the Supplement 11-12 of NP-068) is used for the Russian manufacturers then the availability of the Decisions on them for use, documented and approved in accordance with GD.AKU.7.4-02-02-0059 is additionally controlled, and the availability of the leading material organization's report on the conformity of the characteristics of the grades of steel used to the grades of steel specified in PNAE G-7-008, drawings and control tables is controlled for the imported piping valves manufacturers;
 - Welding materials used conform to the tables 1-9 of PNAE G-7-009;
 - Materials used for surfacing of packing and guiding surfaces conform to the Supplement 13 NP-068;
 - the scope of non-destructive testing conforms to the requirements of DED and PNAE G-7-010 table 2-6 (the availability the leading material organization's report on the conformity of NDT procedures used and requirements for certification of controllers to the requirements of PNAE G-7-010 and unified non-destructive testing procedures are controlled in addition for the imported piping valves manufacturers);
 - if the imported welding materials are used for the Russian manufacturers then the availability of the Decisions for use for them, documented, agreed and approved in accordance with GD.AKU.7.4-02-02-0059 is additionally controlled, and the availability of the leading material organization's report on the conformity of the characteristics of the grades of welding materials used to the grades of welding materials, specified in PNAE G-7-009, and quality control tables is controlled for the piping valves manufacturers;
- Notes:
1. Information on mechanical characteristics and chemical composition of the metal in the scope, stipulated by RD or TS, and information on heat treatment shall be provided for the valves with classification code 1, 2, 3CIIIa, apart from the specified information. In addition, several tables are allowed to be documented. This requirement is not applicable for control instrumentation valves.
 2. When documenting the data sheet for the product batch it is allowed to specify the corresponding mechanical characteristics and chemical composition instead of specific mechanical characteristics and chemical composition to the requirements of TS (or RD for the metal) or specify the minimum permissible parameters according to TS (or RD for metal).
- 8) Information specified on completeness viz. conformity to the requirements of TS/TA/TR.
- 9) Information specified on preservation and packing - preservation period, specified in the section have not been exceed. It is specified in the section that the valve shall withstand storage in the damaged factory packing minimum 36 months without repeat preservation. On expiry of the storage period and then after every 12 months the condition of the container and storage conditions shall be inspected.
- 10) Information specified on departures from engineering documentation for the subject of their conformity to the mismatch record documents and decisions made, included in the supporting documentation set.
- 11) The specified information about the Supplier's guarantees - the warranty period must comply with the requirements of the agreement (contract), TS/TA/TR.

	<p>12) Availability/absence of information on vibration and earthquake resistant (seismic strength) design of the valve and its conformity to the requirements of TS/TA/TR.</p> <p>13) Information on the precious materials and non-ferrous metals and their alloys (hereinafter non-ferrous metals) is specified in accordance with GOST 2.608 “Procedure of recording information about precious materials in operation manuals” for precious materials and GOST 1639 “Scrap and wastes of non-ferrous metals and alloys”. General technical specifications. Interstate council for standardization, metrology and certification” – for non-ferrous metals;</p> <p>14) Total (design) weight of non-ferrous metals, and information on the location of constituent parts of the product that contain non-ferrous metals, are specified. The description of non-ferrous metals and their record sequence is according to GOST 1639.</p> <p>15) Availability of filled Report, including availability of the signatures of the Director and Chief Engineer of the enterprise, Head of QCD, manufacturer’s seal and date of documenting the data sheet.</p> <p>Note: the Data Sheet shall contain the general view drawings and quality control tables TB-1 and TB-2.</p> <p>16) Conformity of product characteristics and data on product components to: - requirements, specified in BDD (TR), TS/TA/TR and DED; - Protocols and reports following the control and tests (hydraulic tests, destructive and non-destructive testing, other types of control and tests), including test results of component parts made by the supplier of component parts or equipment manufacturer.</p> <p>17) Conformity of the scope of tests performed and control to the requirements of DED, in particular, quality control tables TB-1 and TB-2. The notations (numbers) and dates of the documents (protocols, reports etc.), documented following the control and tests, shall conform to that given in the data sheet.</p> <p>18) Availability of information on fastening parts or references to the corresponding deliverables.</p> <p>19) Conformity of specified data about heat treatment of parts, assembly units and products to data, given in the furnace charts and heat treatment diagrams or documents of quality.</p> <p>20) Conformity of characteristics and information, specified in the data sheet of valve drives with the drive data sheet and information, specified on its labelling.</p> <p>21) Conformity of the seat closure leak test results, leak values to the test protocols and requirements of TS/TA/TR.</p> <p>21) Availability/absence of information on vibration and earthquake resistant (seismic strength) design of the valve and its conformity to the requirements of TS/TA/TR.</p> <p>22) Availability of the Guarantees (service life warranty) of the manufacturer and their compliance with the requirements of TS/TA/TR.</p> <p>23) Availability of information on preservation and their compliance with the requirements of TR/TA/TS, DED.</p> <p>24) Availability of information on the Compliance Assessment (indicating the number of the Quality Plan).</p>
2.3	Documents recording nonconformities and decisions made
	Controlled:
2.3.1	<p>For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3):</p> <ul style="list-style-type: none"> - the format for the Non-Conformity Report is in accordance with GD.AKU.8.3-02-02-0051; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.

2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Accompanying documents
Controlled:	
2.4.1	Compliance of the documents formats with the established requirements.
2.4.2	Completeness of the documents filling in.
2.4.3	Compliance of the information specified in the documents with the actual one.
2.5	Deliverables of technical control
Controlled:	
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
Controlled:	
3.1.1	Conformity of product appearance to the requirements of TS/TA/TR, DED.
3.1.2	Conformity of overall dimensions to the requirements of TS/TA/TR, DED.
3.1.3	Conformity of branch pipe preweld edge preparation to the requirements of TS/TA/TR and DED.
3.1.4	Absence of external damages on the product: dents on the lateral faces, flattening of connecting branch butts, gap clearances (warping) of bottom and roof does not exceed the required values in the drawings (if any exist) of base metal damages in the form of burns, deep scratch marks, metal tear and other damages Their linear dimensions (depth/width/length) exceed the values established in GOST/TS for metal (GOST, TS for metal are defined from TB-1 and certificate) and PNAE G-7-025 (section 4.4, if base members, manufactured using casting method, are available).
3.1.5	There are undercutting of necks, sharp angles and edges (with the exception of cases, specified in the design documentation) following machining of the parts.
3.1.6	For safety valves of classes 1A, 2BIIa, 2BIIb – absence of rod packing seals.
3.1.7	If packing seal is available, the height of the packing gland after the final tightening of packing seal shall be such that the seal gland bushing locked into the socket connector minimum by 3 mm and not more than by 30% of its height.
3.1.8	The minor components of the valves, made of carbon steel, are coated with protective coating according to the manufacturer's process instruction. The coating brand conforms to the requirements of TS/TA/TR.
3.1.9	The valves with built-in electric and pneumatic drive and any valve with DN > 50 has arrangement for its rigid fixation to the building structures.
3.1.10	In the design of valve flanges, designed for operation with radioactive medium, elements (for example "whiskers") are provided, which give the possibility of additionally compacting the joint by welding minimum three times during repairs.
3.2	Exterior check of welded joints (if welding is available).
Controlled:	
3.2.1.	Absence of defects in welded joints according to PNAE G-7-010 (section 11.2), visible during visual examination: surface cracks of all types and directions; descaling; lapping; weld spatters; burn-through, blowholes, shrinkage cavities; undercuts; faulty fusion; clusters and non-isolated inclusions.
3.2.2	Conformity of joint displacement in abutting joints, height (depth) of low spot between the beads, their surface ripple, concavity of the joint root, isolated surface inclusions of welded joints to the requirements of PNAE G-7-010 (section 11.2).

3.2.3	Availability and conformity of labelling (seals) on welded joints (surfaced parts) to the requirements of the section 10 of PNAE G-7-009 and DED.
3.2.4	Availability and conformity of labelling (seals) on welded joints (surfaced parts) to the requirements of the section 10 of PNAE G-7-009. Conformity of seal numbers on the product to the numbers specified in TB-2, diagram of welded joints and data sheet section "Data on welded joints and surfacing".
3.2.5	If there are unlabelled welded joints (deposits), the description of this case in DED and availability of product sketches (drawings) in the supporting documentation specifying the location of unlabelled welded joints and seals of welders, performing the welding (surfacing) is controlled. Note: thus, it must be considered that (in conformity with item 10.4 of PNAE G-7-009), if all the welded joints of the product are performed by one welder, then sealing (marking) of each welded joint is allowed not to be made. In this case, the welder's seal is placed near the nameplate or at other open section of the product (or welding assembly) and the place of sealing is enclosed in a readily visible frame, applied using indelible paint (the latter shall not spread on the product surface, washed by the coolant).
3.2.6	The mating flanges (hose fittings) delivered complete with the valve are butt welded.
3.2.7	Meeting the requirements of PNAE G-7-008 (requirements to the design and location of welds).
3.2.8	Butt welds (if they exist) are executed with full penetration.
3.2.9	The roughness of valve outer surface shall be maximum $Ra = 100 \mu m$ ($Rz = 500 \mu m$) or conform to the requirements of non-destructive testing.
3.2.10	The minor components of valves, manufactured using carbon steel, shall be coated with protective coatings according to the manufacturer's process instructions.
3.2.11	Conformity of welders' seals specified in the licenses and weld log books.
3.3	Product internal inspection
Controlled:	
3.3.1	Absence of foreign objects, dirt, water inside the products.
3.3.2	Absence of base metal damage in the form of burns, traces of foreign object impact, defects of machining work, laminations, rust and other defects.
4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	
4.1	Product completion conformity to packing list and TS/TA/TR
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list. Remarks: 1. Motor driven valve $DN \leq 300$ delivered with drive, installed on the valve. For motor driven valve, $DN > 300$ it is allowed to deliver the valve with dismantled motor drive (motor) in the single shipping container. 2. The delivery set shall include remote alarm electrical sensor of the extreme positions of shutoff device installed directly on the valve or packed in conformity with TS/TA/TR for the sensors or valve. 3. The delivery set shall include set of test rings of each standard size with one machined edge for welding of control samples (requirement to deliver test rings, their quantity and sizes shall be specified in the delivery agreement (contract)). 4. Quick-acting air driven valve is supplied as complete set with air control valve and terminal switches. 5. Valve with class 1A, 2BIIa, 2IIa, 3CIIIa if closure head division is available shall be completed with devices, assuring controlled torque studs.
5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	

5.1	Valve casing labelling (recording capacity) conformance to the requirements of TS/TA/TR and NP -068.
5.2	Conformity of labelling data for the valves: manufacturer's name or trademark, serial number, year of manufacture, rated pressure (in the casing), rated temperature (in the casing), nominal inside diameter DN, flow arrow (during unidirectional medium feed), type of operating medium (liquid - "l", gas - "g", steam - "s"), valve class notation (according to table 1), valve safety class and group, product notation, steel grade and melt number (for casing, made of castings) to the requirements of TS/TA/TR and records in the certificate. Note: if there are no restrictions for medium type, it's designation shall be not marked.
5.3	Conformity of labelling data for motor drive: manufacturer's name or trademark, symbolic notation of motor drive, torque range, rpm, maximum number of rotations, rated power (on motor nameplate), IP code, weight, serial number, year of manufacture to the requirements of TS/TA/TR for valve and records in the motor drive certificate.
5.4	Product branch pipes capped in conformity with the requirements of TS/TA/TR and packing instructions.
5.5	Compliance of the product painting with the requirements of the agreement (contract), TS/TA/TR and DED. Remarks: 1) Fastening parts, rods and other surfaces without paint shall be preserved with lubricant K-17 or other conserving agent by agreement with the Company. 2) Surfaces of valve parts made of pearlite class steel, machined for preweld during installation are not painted for a width 20 mm from the edge, but are conserved.
5.6	Compliance of the product packing and preservation with the requirements of the agreement (contract), OM, TS/TA/TR and GOST 9.014.
5.7	The duration of temporary corrosion protection of products (according to the Data Sheet) are not less than that specified in the agreement (contract), TS/TA/TR, GOST 9.014.
5.8	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection of electrical equipment, instrument equipment, automation equipment, APCS, IT system

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	TS/TA/TR for the equipment.
1.2	Equipment general view drawing.
1.3	Equipment assembly drawing.
1.4	Assembly drawing specification for equipment.
1.5	Drawings of parts and assembly units, included in equipment.
1.6	Wiring diagram or list of electrical interface list elements.
1.7	Text and description of software (if software used is available).
1.8	Report on verification and validation of software, approved in the established procedure.
1.9	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.10	Software form according to GOST 19.501.
1.11	Equipment Data Sheet/service list/label.
1.12	Operation manual for equipment.
1.13	Certificate and operation manual of component parts (if available)
1.14	Approval certificate for measuring instruments (for equipment, being the measuring instrument)
1.15	Mismatch record documents and decisions made (if any exist).
1.16	Quality plan for equipment.
1.17	Quality plan for component parts (if any exist).
1.18	Test protocols for seismic resistance of equipment.
1.19	Maintenance document list.
1.20	SPTA set list.
1.21	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.22	Decision on use of imported component parts, materials (semi-finished products) and (or) welding materials, documented, agreed and approved in accordance with AKKUYU NÜKLEER ANONİM ŞİRKETİ standard GD.AKU.7.4-02-02-0059 (for electrical equipment, which were manufactured in the territory of the RF using imported component parts, semi-finished products and (or) welding materials).
1.23	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.24	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Checking of formal correctness and content of supporting documentation
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation,

	documented by the enterprise following the conduct of operations, and in the equipment data sheet/service list/label.
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product certificates with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contract).
2.2	Equipment Data sheet
Controlled:	
2.2.1	Compliance of the Data Sheet format to the requirement of TS/TA/TR (if there are any).
2.2.2	Availability of filled sections of the data sheet and conformity of their content to the requirements of TS/TA/TR and available Test Reports (calculations) with regard to: - Description and notation of product, safety class, climatic version, seismic resistance category, resistance of external mechanical actions, shell protection rating according to GOST 14254, severity of tests and factor of functioning quality during tests for interference immunity, reliability indices; - Requirements for completeness of set, preservation and storage time, manufacturer's warranty.
2.2.3	Specified information on precious materials and non-ferrous metals and their alloys specified (hereinafter non-ferrous metals) in conformity with GOST 2.608 "Procedure of recording information on precious materials in the operational documents" for precious materials and GOST 1639 "Scrap and non-ferrous and alloy waste. General technical specifications. Interstate Council for standardization, metrology and certification" – for non-ferrous metals.
2.2.4	Specified total (design) weight of non-ferrous materials, and information on locations of the product component parts, which contain non-ferrous materials are specified. The description of non-ferrous materials and the sequence of their record is according to GOST 1639.
2.2.5	Conformity of product weights to the requirements of TS/TA/TR.
2.2.6	Conformity of measurement assurance to the regulatory requirements (calibration of measuring instruments).
2.2.7	Availability of filled section "certificate of packing" with packers mark and date of packing.
2.2.8	Availability of filled section "certificate of acceptance" with signature of QCD controller and manufacturer's seal.
2.2.9	Availability of filled section, containing name, de facto and registered address of the manufacturer and Rostekhnadzor manufacturing license number.
2.3	Documents recording nonconformities and decisions made
Controlled:	
2.3.1	For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3): - the format for the Non-Conformity Report is in accordance with GD.AKU.8.3-02-02-0051; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established

	procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.
2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Test Reports for seismic resistance
Controlled:	
2.4.1	Vibration resistance and vibration strength of the product have been confirmed following the tests.
2.4.2	When performing tests the loads were applied at the base of shear mounting. The product mounting technique on the test stand slab shall be similar to its mounting technique during operation.
2.4.3	The combination of loads conform to the floor accelerograms and floor response spectrums for the product mounting location at “Akkuyu” NPP (shall be given in TS/TA/TR) for the corresponding equipment seismic category (item 6.7 NP-031).
2.5	Accompanying documents
Controlled:	
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
2.6	Deliverables of technical control
Controlled:	
2.6.1	Compliance of the documents formats with the established requirements.
2.6.2	Completeness of the documents filling in.
2.6.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
Controlled:	
3.1.1	Conformity of descriptions and designations of component parts used (apparatuses, instruments and devices) to the requirements of DED and Decisions on use of imported component parts, documented, concurred and approved in accordance with GD.AKU.7.4-02-02-0059 (if imported component parts available).
3.1.2	Absence of defects of protective and protective and decorative coatings (visually).
3.1.3	Availability of the possibility of removal and replacement of component parts (apparatuses, instruments and devices).
3.1.4	Quality of gasket and conductor (cable) connection - visually.
3.1.5	Availability and completeness of equipment parts, designed for external connections.
3.1.6	Absence of damages of component parts (apparatuses, instruments and devices) - visually.
3.1.7	Availability, correctness and location of nameplates with functional inscriptions and reference designators.
3.1.8	Compliance of the overall and connecting and (or) installation dimensions of products for the conformity with the requirements of DED.
4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	
4.1	Product completion conformity to packing list and TS/TA/TR
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list.
5	Product preservation, painting, packing and marking conformity

	inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	
5.1	Product labelling (recording capacity) conformance to the requirements of DED.
5.2	Conformity of the serial number of products, year of manufacture, manufacturer's seal to the records in the data sheet.
5.3	Compliance of the product painting with the requirements of the agreement (contract), TS/TA/TR and DED.
5.4	Compliance of the product packing and preservation with the requirements of the agreement (contract), TS/TA/TR, DED and GOST 9.014.
5.5	The duration of temporary corrosion protection of products are not less than that specified in the agreement (contract), TS/TA/TR, GOST 9.014.
5.6	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection of the Load-lifting machinery

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	Technical specification/TA for HM.
1.2	HM general view drawing.
1.3	HM assembly drawing.
1.4	Assembly drawing specification for HM.
1.5	Drawings of parts and assembly units, forming part of HM.
1.6	Drawings of non-durables included in HM.
1.7	Electric wiring diagrams.
1.8	Design and instructions for operation of gantry rails.
1.9	Table of basic metal quality control - TB-1 (if specified in DED or agreement (contract)).
1.10	Quality control table of welding materials, welded joints and weld overlays - TB-2 (if specified in DED or agreement (contract)).
1.11	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.12	HM certificate.
1.13	Operations manual for HM.
1.14	Certificate and operations manual of component parts (if any exist).
1.15	Mismatch record documents and decisions made (if any exist).
1.16	Quality plan for HM.
1.17	Quality plan for component parts (if any exist).
1.18	HM strength (abstract of calculation) and seismic resistance calculation.
1.19	Maintenance document list.
1.20	SPTA set list.
1.21	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.22	Decision on use of imported component parts, materials (semi-finished products) and (or) welding materials, documented, agreed and approved in accordance with AKKUYU NÜKLEER ANONİM ŞİRKETİ standard GD.AKU.7.4-02-02-0059 (for Load-lifting machinery, which were manufactured in the territory of the RF using imported component parts, semi-finished products and (or) welding materials).
1.23	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.24	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contract).
2	Checking of formal correctness and content of supporting documentation
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation, documented by the enterprise following the conduct of operations, and in the Load-lifting machinery Data sheet.

2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product certificates with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contract).
2.2	Data sheet on hoisting equipment
Controlled:	
2.2.1	Conformity of the Data Sheet format to the requirement of RD and/or TS/TA/TR.
2.2.2	<p>Availability of filled sections of the load-lifting machinery Data Sheet and accuracy of its content in the part of conformity of:</p> <ol style="list-style-type: none"> 1) Specified manufacturing license number and date of its issue, name of the interregional territorial directorate of Rostekhnadzor, issuing the license. 2) Specified technical characteristics of load-lifting machinery (including characteristics of component parts) – data shall coincide with data in TS/TA/TR, DED and documents on quality for component parts – specify in addition which characteristics are controlled. 3) Compliance of documentation, included in the load-lifting machinery Data Sheet, with the requirements of RD and (or) TS/TA/TR. 4) Information on precious materials and non-ferrous metals and their alloys specified (hereinafter non-ferrous metals) in conformity with GOST 2.608 “Procedure of recording information on precious materials in the operational documents” for precious materials and GOST 1639 “Scrap and non-ferrous and alloy waste. General technical specifications. Interstate Council for standardization, metrology and certification” – for non-ferrous metals; 5) Total (design) weight of non-ferrous materials, and information on locations of the product component parts, which contain non-ferrous materials are specified. The description of non-ferrous materials and the sequence of their record is according to GOST 1639. 6) Conformance of product characteristics and data about product elements: <ul style="list-style-type: none"> - requirements, specified in BDD, TS/TA/TR and DED; - To the records and reports following the control and tests (destructive and non-destructive test, other types of control and tests), including test results of component parts, made by the supplier of component parts or equipment manufacturer. 8) Conformity of the scope of tests performed and control to the requirements of DED, in particular, to the quality control tables TB-1 and TB-2. Designations (numbers) and dates of documents (protocols, reports etc.), documented following the control and tests, shall conform to that presented in the certificate. 9) If the imported component parts are used for the Russian manufacturers then the availability of the Decisions for use for them, documented, agreed and approved in accordance with GD.AKU.7.4-02-02-0059. 10) Conformity of information on completeness to the requirements of TS/T/TR. 11) Availability of filled Report, including availability of signatures of the Director and Chief Engineer of the enterprise, QCD head, manufacturer’s seal, and documentation date of certificate.
2.3	Documents recording nonconformities and decisions made
Controlled:	
2.3.1	<p>For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3):</p> <ul style="list-style-type: none"> - the format of the Non-conformance Report complies with the GD.AKU.8.3-02-02-0051 standard; - All the columns of the mismatch Report have been filled;

	<ul style="list-style-type: none"> - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.
2.3.2	<p>For Decisions (class and type mismatch A and B-4):</p> <ul style="list-style-type: none"> - the Decision is agreed according to the established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Calculation for seismic resistance
Controlled:	
2.4.1	Rostekhnadzor has approved the calculation procedure (for RF manufacturers).
2.4.2	Design-basis justification of seismic resistance with HM and its elements have been made for the case of transporting maximum load, specified in its certificate for normal operation.
2.5	Accompanying documents
Controlled:	
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
2.6	Deliverables of technical control
Controlled:	
2.6.1	Compliance of the documents formats with the established requirements.
2.6.2	Completeness of the documents filling in.
2.6.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
Controlled:	
3.1.1	Conformity of product appearance to the requirements of TS/TA/TR, DED.
3.1.2	Conformity of dimensional specification of the load-lifting machinery components (for component parts their name, designation and technical characteristics are similarly checked) to the requirements of DED for load-lifting machinery and Data Sheets (for component parts).
3.1.3	Absence of external damages on the product: dents, base metal damages in the form of burns, deep scratch marks, metal tears and other damages, whose linear dimensions (depth/width/length) exceed the values established in GOST/TS for metal (GOST, TS for metal are defined from TB-1).
3.2	Exterior inspection of welded joints (if welding is available)
Controlled:	
3.2.1.	Conformance of form and dimensions of welded joints to the requirements of DED.
3.2.2	Absence of defects in welded joints, visible during visual inspection: all types and directions of surface cracks; local deposits of total length more than 10 mm on weld section 1000 mm; under cuts of depth more than 0.5 mm at thickness of the thinnest of the welded elements up to 20 mm inclusive; under cuts of depth more than 3% thickness of the thinnest of welded elements, at its thickness above 20 mm; pores numbering 4 pcs on weld length 100 mm (besides the maximum pore size shall be maximum 1 mm, at thickness of the welded elements above 8 mm up to 50 mm inclusive); cluster pores numbering more than 5 pcs for 1 cm weld area (besides the maximum size of any pore shall be maximum 1 mm); unfilled craters; burns and blowholes.
3.2.3	Height difference of comb and surface valley of butt-welded joint at any of its cross-section along its length is not more than the tolerance for weld reinforcement.
3.2.4	Height difference of comb and surface valley, measured along the throat, corner weld

	thickness at any place of its length is maximum 0,7 of the leg of fillet.
3.2.5	Availability and conformity of labelling (seals) on welded joints (overlay parts) to the requirements of DED. Conformity of seal numbers on the product to the numbers, specified in TB-2.
3.2.6	Conformity of welders' seals specified in the licenses and weld history sheets.
4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	
4.1	Product completion conformity to packing list and TS/TA/TR
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list.
5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	
5.1	Product labelling (recording capacity) compliance with the requirements of TS/TA/TR.
5.2	Compliance of the serial number of products, year of manufacture, manufacturer's seal, seismic category and safety class of the product in the labelling with the records in the Data Sheet.
5.3	Availability of labelling on the wedge spigot and wedge of HM, conforming to the requirements of rope diameter.
5.4	Compliance of the product painting with the requirements of the agreement (contract), TS/TA/TR and DED.
5.5	Compliance of the product packing and preservation with the requirements of the agreement (contract), TS/TA/TR, DED and GOST 9.014
5.6	The duration of temporary corrosion protection of products (according to the Data Sheet) are not less than that one specified in the agreement (contract), GOST 9.014.
5.7	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection of the power transformers

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	TS/TA/TR for the equipment.
1.2	Equipment general view drawing.
1.3	Equipment assembly drawing.
1.4	Assembly drawing specification for equipment.
1.5	Drawings of parts and assembly units, included in equipment.
1.6	Electric wiring diagrams.
1.7	Winding connection diagram.
1.8	Electric diagram of connections or the table of connections;
1.9	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.10	Data sheet/service list for the equipment
1.11	Operation manual for equipment.
1.12	Certificate and operation manual of component parts (if any exist).
1.13	Deliverables based on the results of factory tests/calculations for the power transformers
1.14	Non-conformance records and decisions made (if any exist).
1.15	Quality plan for equipment.
1.16	Quality plan for component parts (if any exist).
1.17	Test protocols for seismic resistance of equipment.
1.18	Maintenance document list.
1.19	SPTA set list.
1.20	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.21	Decision on use of imported component parts documented, agreed and approved in accordance with AKKUYU NÜKLEER ANONİM ŞİRKETİ standard GD.AKU.7.4-02-02-0059 (for electrical equipment, which were manufactured in the territory of the RF using imported component parts, semi-finished products and (or) welding materials).
1.22	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.23	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Checking of formal correctness and content of supporting documentation
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation, documented by the enterprise following the conduct of operations, and in the equipment data sheet/service list/label.
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the

	identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product certificates with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contract).
2.2	Data sheet/service list for the equipment
	Controlled:
2.2.1	Compliance of the Data Sheet format to the requirement of TS/TA/TR (if there are any).
2.2.2	Availability of filled sections of the data sheet and conformity of their content to the requirements of TS/TA/TR and available Test Reports (calculations) with regard to: <ul style="list-style-type: none"> - description and designation of product, safety class, climatic version, seismic resistance category, resistance of external mechanical actions; - the technical characteristics of the equipment, including the characteristics of the component parts (the data must comply with the data in the TR/SP/TA, DED and quality documents); - conventional designation of windings connection group and diagram; - rated frequency in hertz; - nominal mode (if the mode differs from the continuous one); - rated power in kilovolt amperes; - the rated voltage of the transformer and the voltage of the taps; - rated current of windings on the main tap; - short-circuit voltage on the main tap; - insulation level of the winding and its neutral; - class of heat resistance of insulation (for dry); - the customer acceptance testing data required for the transformer commissioning; - highest continuous current-carrying capacity of the common winding for autotransformers; - no-load losses; - short-circuit losses on the main tap lead in all dual modes; - short-circuit voltage of all pairs of split winding parts and the pairs of each split winding part and each of nonsplit windings on the main and end tap leads (for split winding transformers); - no-load current; - windings direct current resistance; - resistance and dielectric loss tangent of the transformer insulation; - the temperature value at which the windings direct current resistance, resistance and dielectric loss tangent of the transformer insulation were measured; - indication about light insulation (for transformers with light insulation); - rated thermal time constant of the transformer; - designation of RD and breakdown voltage of oil applied during testing, and oil, the transformer tank is filled with (for transformers of 110 kV and over voltage rating, the dielectric loss tangent at a temperature of 90° C should be additionally specified); - values of each pressing ring measured pressing forces, regardless of the power and voltage class; - reliability indicators; - Requirements for completeness of set, preservation and storage time, manufacturer's warranty.
2.2.3	Specified information on precious materials and non-ferrous metals and their alloys

	specified (hereinafter non-ferrous metals) in conformity with GOST 2.608 “Procedure of recording information on precious materials in the operational documents” for precious materials and GOST 1639 “Scrap and non-ferrous and alloy waste. General technical specifications. Interstate Council for standardization, metrology and certification” – for non-ferrous metals.
2.2.4	Specified total (design) weight of non-ferrous materials, and information on locations of the product component parts, which contain non-ferrous materials are specified. The description of non-ferrous materials and the sequence of their record is according to GOST 1639.
2.2.5	Conformity of product weights to the requirements of TS/TA/TR.
2.2.6	Conformity of measurement assurance to the regulatory requirements (calibration of measuring instruments).
2.2.7	Availability of filled section “certificate of packing” with packers mark and date of packing.
2.2.8	Availability of filled section “certificate of acceptance” with signature of QCD controller and manufacturer’s seal.
2.2.9	Availability of filled section, containing name, de facto and registered address of the manufacturer and Rostekhnadzor manufacturing license number.
2.3	Documents recording nonconformities and decisions made
Controlled:	
2.3.1	For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3): - the format for the Non-Conformity Report is in accordance with GD.AKU.8.3-02-02-0051; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.
2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Results of the tests performed
Monitored for compliance with the requirements of TS/TA results of factory tests indicated in the report documentation/calculations on:	
2.4.1	Determination of the characteristics of a steady-state short circuit.
2.4.2	Determination of no-load parameters.
2.4.3	Electric strength of winding insulation relative to the machine housing and between windings, as well as turn-to-turn insulation testing.
2.4.4	Insulation resistance of the windings relative to the housing and between the windings.
2.4.5	Insulation resistance of the used resistance temperature transducers.
2.4.6	Testing the resistance of the windings at direct current in a cold state.
2.4.7	The transformer ratio and windings groups connection testing.
2.4.8	Measurement of dielectric parameters of insulation (resistance, tangent of dielectric loss angle for all transformers of voltage classes 110 kV and above.
2.4.9	Seismic resistance, vibration resistance and vibration strength (if required). The testing/calculation results must confirm the specified requirements in terms of the amplitude of accelerations/earthquakes extents on the MSK-64 scale for the established elevation, frequency range and direction of vibration (seismic) impact.
2.4.10	Reliability indicators.

2.4.11	Electromagnetic compatibility (if required).
2.4.12	Stability to transportation conditions.
2.5	Accompanying documents
Controlled:	
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
2.6	Deliverables of technical control
Controlled:	
2.6.1	Compliance of the documents formats with the established requirements.
2.6.2	Completeness of the documents filling in.
2.6.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
Controlled:	
3.1.1	Conformity of descriptions and designations of component parts used (apparatuses, instruments and devices) to the requirements of DED and Decisions on use of imported component parts, documented, concurred and approved in accordance with GD.AKU.7.4-02-02-0059 (if imported component parts available).
3.1.2	Absence of defects of protective and protective and decorative coatings (visually).
3.1.3	Conformity of product appearance to the requirements of TS/TA/TR, DED.
3.1.4	Compliance of the overall and connecting and (or) installation dimensions of products with the requirements of DED.
3.1.5	Absence of external damages on the products: dents, deformations, corrosion, damage to insulating materials and other damage, the integrity of the protective coatings.
3.1.6	Absence of foreign objects and substances.
3.1.7	Availability, correctness and location of nameplates with functional inscriptions and reference designators.
3.1.8	The quality of lining and connecting live parts, cables.
3.1.9	Availability and completeness of equipment parts, designed for external connections.
3.1.10	Absence of damages of component parts (apparatuses, instruments and devices).
4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	
4.1	Product completion conformity to packing list and TS/TA/TR
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list.
5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	
5.1	Product labelling (recording capacity) conformance to the requirements of DED.
5.2	Conformity of the serial number of products, year of manufacture, manufacturer's seal to the records in the data sheet.
5.3	Compliance of the product painting with the requirements of the agreement (contract), TS/TA/TR and DED.
5.4	Compliance of the product packing and preservation with the requirements of the agreement (contract), TS/TA/TR, DED and GOST 9.014.

5.5	The duration of temporary corrosion protection of products are not less than that specified in the agreement (contract), TS/TA/TR, GOST 9.014.
5.6	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection of the turbine generator

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	TS/TA/TR for the equipment.
1.2	Equipment general view drawing.
1.3	Equipment assembly drawing.
1.4	Assembly drawing specification for equipment.
1.5	Drawings of parts and assembly units, included in equipment.
1.6	Electric wiring diagrams.
1.7	Winding connection diagram.
1.8	Electric diagram of connections or the table of connections;
1.9	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.10	Data sheet/service list for the equipment
1.11	Operation manual for equipment.
1.12	Certificate and operation manual of component parts (if any exist).
1.13	Deliverables based on the results of factory tests/calculations for equipment.
1.14	Non-conformance records and decisions made (if any exist).
1.15	Quality plan for equipment.
1.16	Quality plan for component parts (if any exist).
1.17	Test protocols for seismic resistance of equipment.
1.18	Maintenance document list.
1.19	SPTA set list.
1.20	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.21	Decision on the use of imported components, documented, agreed and approved in accordance with GD.AKU.7.4-02-02-0059 (for equipment manufactured in the territory of the Russian Federation and in the manufacture of which imported components were used).
1.22	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.23	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Checking of formal correctness and content of supporting documentation
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation, documented by the enterprise following the conduct of operations, and in the equipment data sheet/service list/label.
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the

	identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product certificates with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contract).
2.2	Data sheet/service list for the equipment
	Controlled:
2.2.1	Compliance of the Data Sheet format to the requirement of TS/TA/TR (if there are any).
2.2.2	Availability of filled sections of the data sheet and conformity of their content to the requirements of TS/TA/TR and available Test Reports (calculations) with regard to: - description and designation of product, safety class, climatic version, seismic resistance category, resistance of external mechanical actions; - the technical characteristics of the turbine generators, including the characteristics of the component parts (the data must comply with the data in the TR/SP/TA, DED and quality documents); - reliability indicators; - Requirements for completeness of set, preservation and storage time, manufacturer's warranty.
2.2.3	Specified information on precious materials and non-ferrous metals and their alloys specified (hereinafter non-ferrous metals) in conformity with GOST 2.608 "Procedure of recording information on precious materials in the operational documents" for precious materials and GOST 1639 "Scrap and non-ferrous and alloy waste. General technical specifications. Interstate Council for standardization, metrology and certification" – for non-ferrous metals.
2.2.4	Specified total (design) weight of non-ferrous materials, and information on locations of the product component parts, which contain non-ferrous materials are specified. The description of non-ferrous materials and the sequence of their record is according to GOST 1639.
2.2.5	Conformity of product weights to the requirements of TS/TA/TR.
2.2.6	Conformity of measurement assurance to the regulatory requirements (calibration of measuring instruments).
2.2.7	Availability of filled section "certificate of packing" with packers mark and date of packing.
2.2.8	Availability of filled section "certificate of acceptance" with signature of QCD controller and manufacturer's seal.
2.2.9	Availability of filled section, containing name, de facto and registered address of the manufacturer and Rostekhnadzor manufacturing license number.
2.3	Documents recording nonconformities and decisions made
	Controlled:
2.3.1	For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3): - the format for the Non-Conformity Report is in accordance with GD.AKU.8.3-02-02-0051; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051;

	- All measures for mismatch Report have been executed.
2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Results of the tests performed
	Monitored for compliance with the requirements of TS/TA results of factory tests indicated in the report documentation/calculations on:
2.4.1	Determination of the steady-state three-phase short-circuit characteristics,
2.4.2	Determination of no-load characteristics.
2.4.3	The electrical strength of the insulation of the stator and rotor windings relative to the machine housing and between the windings, as well as turn-to-turn insulation tests.
2.4.4	Insulation resistance of the windings relative to the housing and between the windings.
2.4.5	The resistance of the stator and rotor windings at direct current in a cold state.
2.4.6	Seismic resistance, vibration resistance and vibration strength (if required). The testing/calculation results must confirm the specified requirements in terms of the amplitude of accelerations/earthquakes extents on the MSK-64 scale for the established elevation, frequency range and direction of vibration (seismic) impact.
2.4.7	Reliability indicators of the turbine generator (results of statistical processing of data obtained from operating experience, with a frequency of three years).
2.4.8	Electromagnetic compatibility (if required).
2.4.9	Stability to transportation conditions.
2.5	Accompanying documents
	Controlled:
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
2.6	Deliverables of technical control
	Controlled:
2.6.1	Compliance of the documents formats with the established requirements.
2.6.2	Completeness of the documents filling in.
2.6.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
	Controlled:
3.1.1	Conformity of descriptions and designations of component parts used (apparatuses, instruments and devices) to the requirements of DED and Decisions on use of imported component parts, documented, concurred and approved in accordance with GD.AKU.7.4-02-02-0059 (if imported component parts available).
3.1.2	Absence of defects of protective and protective and decorative coatings (visually).
3.1.3	Conformity of product appearance to the requirements of TS/TA/TR, DED.
3.1.4	Compliance of the overall and connecting and (or) installation dimensions of products with the requirements of DED.
3.1.5	Absence of external damages on the products: dents, deformations, corrosion, damage to insulating materials and other damage, the integrity of the protective coatings.
3.1.6	Absence of foreign objects and substances.
3.1.7	Availability, correctness and location of nameplates with functional inscriptions and reference designators.
3.1.8	The quality of lining and connecting live parts, cables.
3.1.9	Availability and completeness of equipment parts, designed for external connections.
3.1.10	Absence of damages of component parts (apparatuses, instruments and devices).

4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	
4.1	Product completion conformity to packing list and TS/TA/TR
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list.
5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	
5.1	Product labelling (recording capacity) conformance to the requirements of DED.
5.2	Conformity of the serial number of products, year of manufacture, manufacturer's seal to the records in the data sheet.
5.3	Compliance of the product painting with the requirements of the agreement (contract), TS/TA/TR and DED.
5.4	Compliance of the product packing and preservation with the requirements of the agreement (contract), TS/TA/TR, DED and GOST 9.014.
5.5	The duration of temporary corrosion protection of products are not less than that specified in the agreement (contract), TS/TA/TR, GOST 9.014.
5.6	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection of the steam turbine plant

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	TS/TA/TR for the equipment.
1.2	The turbine longitudinal section drawing.
1.3	Drawing of steam paths of LPC, HIPC, HPC.
1.4	Drawing of the connection between the turbine and the generator.
1.5	Drawings of parts and assembly units, included in equipment.
1.6	Drawings, diagrams of equipment for the steam turbine plant.
1.7	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.8	Data sheet/service list for the equipment
1.9	Operation manual for equipment.
1.10	Certificate and operation manual of component parts (if available)
1.11	Deliverables based on the results of factory tests/calculations for equipment.
1.12	Non-conformance records and decisions made (if any exist).
1.13	Quality plan for equipment.
1.14	Quality plan for component parts (if any exist).
1.15	Test protocols for seismic resistance of equipment.
1.16	Maintenance document list.
1.17	SPTA register
1.18	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.19	Decision on the use of imported components, documented, agreed and approved in accordance with GD.AKU.7.4-02-02-0059 (for equipment manufactured in the territory of the Russian Federation and in the manufacture of which imported components were used).
1.20	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.21	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Checking of formal correctness and content of supporting documentation
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation, documented by the enterprise following the conduct of operations, and in the equipment data sheet/service list/label.
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.

2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.
2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product certificates with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contract).
2.2	Data sheet/service list for the equipment
Controlled:	
2.2.1	Compliance of the Data Sheet format to the requirement of TS/TA/TR (if there are any).
2.2.2	Availability of filled sections of the data sheet and conformity of their content to the requirements of TS/TA/TR and available Test Reports (calculations) with regard to: - description and designation of product, safety class, climatic version, seismic resistance category, resistance of external mechanical actions; - reliability indicators; - Requirements for completeness of set, preservation and storage time, manufacturer's warranty.
2.2.3	Specified information on precious materials and non-ferrous metals and their alloys specified (hereinafter non-ferrous metals) in conformity with GOST 2.608 "Procedure of recording information on precious materials in the operational documents" for precious materials and GOST 1639 "Scrap and non-ferrous and alloy waste. General technical specifications. Interstate Council for standardization, metrology and certification" – for non-ferrous metals.
2.2.4	Specified total (design) weight of non-ferrous materials, and information on locations of the product component parts, which contain non-ferrous materials are specified. The description of non-ferrous materials and the sequence of their record is according to GOST 1639.
2.2.5	Conformity of product weights to the requirements of TS/TA/TR.
2.2.6	Conformity of measurement assurance to the regulatory requirements (calibration of measuring instruments).
2.2.7	Availability of filled section "certificate of packing" with packers mark and date of packing.
2.2.8	Availability of filled section "certificate of acceptance" with signature of QCD controller and manufacturer's seal.
2.2.9	Availability of filled section, containing name, de facto and registered address of the manufacturer and Rostekhnadzor manufacturing license number.
2.3	Documents recording nonconformities and decisions made
Controlled:	
2.3.1	For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3): - the format for the Non-Conformity Report is in accordance with GD.AKU.8.3-02-02-0051; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.
2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.

2.4	Results of the tests performed
Monitored for compliance with the requirements of TS/TA results of factory tests indicated in the report documentation/calculations on:	
2.4.1	Controlled assembly of individual turbine assembly units at special stands.
2.4.2	Hydraulic testing of turbine casing parts.
2.4.3	Check of the hydraulic part of the control system.
2.4.4	Dynamic balancing of all rotors over the full speed range.
2.4.5	Vibration resistance and vibration strength tests (if required) of the steam turbine plant equipment. The testing/calculation results must confirm the specified requirements in terms of the amplitude of accelerations/earthquakes extents on the MSK-64 scale for the established elevation, frequency range and direction of vibration (seismic) impact.
2.4.6	For the electromagnetic compatibility of the steam turbine plant equipment (if required).
2.4.7	Stability to transportation conditions of the steam turbine plant equipment.
2.4.8	Controlled assembly of the turbine and testing during rotation of the turbine rotor barring gear.
2.5	Accompanying documents
Controlled:	
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
2.6	Deliverables of technical control
Controlled:	
2.6.1	Compliance of the documents formats with the established requirements.
2.6.2	Completeness of the documents filling in.
2.6.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
Controlled:	
3.1.1	Conformity of descriptions and designations of component parts used (apparatuses, instruments and devices) to the requirements of DED and Decisions on use of imported component parts, documented, concurred and approved in accordance with GD.AKU.7.4-02-02-0059 (if imported component parts available).
3.1.2	Absence of defects of protective and protective and decorative coatings (visually).
3.1.3	Conformity of product appearance to the requirements of TS/TA/TR, DED.
3.1.4	Compliance of the overall and connecting and (or) installation dimensions of products with the requirements of DED.
3.1.5	Absence of external damages on the products: dents, deformations, corrosion, damage to insulating materials and other damage, the integrity of the protective coatings.
3.1.6	Absence of foreign objects and substances.
3.1.7	Availability, correctness and location of nameplates with functional inscriptions and reference designators.
3.1.8	The quality of lining and connecting live parts, cables.
3.1.9	Availability and completeness of equipment parts, designed for external connections.
3.1.10	Absence of damages of component parts (apparatuses, instruments and devices).
4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	
4.1	Product completion conformity to packing list and TS/TA/TR
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
4.3	SPTA completion conformity to SPTA set list.

5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	
5.1	Product labelling (recording capacity) conformance to the requirements of DED.
5.2	Conformity of the serial number of products, year of manufacture, manufacturer's seal to the records in the data sheet.
5.3	Compliance of the product painting with the requirements of the agreement (contract), TS/TA/TR and DED.
5.4	Compliance of the product packing and preservation with the requirements of the agreement (contract), TS/TA/TR, DED and GOST 9.014.
5.5	The duration of temporary corrosion protection of products are not less than that specified in the agreement (contract), TS/TA/TR, GOST 9.014.
5.6	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

The standard scope of inspections when performing acceptance inspection for the equipment not specified in Appendices Nos. 1 ÷ 12

No.	Description of inspection
1	Supporting documentation completeness verification
	The availability of documents is controlled in accordance with the supply agreement (contract):
1.1	Technical specification/TA for the equipment.
1.2	General arrangement drawing.
1.3	Assembly drawing.
1.4	Assembly drawing specification.
1.5	Drawings of parts and assembly units, forming part of the equipment.
1.6	Table of basic metal quality control - TB-1.
1.7	Quality control table of welding materials, welded joints and weld overlays - TB-2.
1.8	Certificates for semi-finished products/materials and welding materials.
1.9	Packing list, if stipulated by the agreement (contract) and product packing is checked during the Acceptance Inspection.
1.12	Data sheet and operations manual (if available).
1.13	Non-conformance record documents and decisions made (if any exist).
1.14	Quality plan.
1.15	Quality plan for component parts (if any exist).
1.17	Maintenance document list.
1.18	SPTA set list.
1.19	Repair documentation (Technical Specification for repairs, list of repair documents, etc.) in accordance with the supply agreement (contract).
1.20	Decision on use of imported component parts, materials (semi-finished products) and (or) welding materials, documented, agreed and approved in accordance with AKKUYU NÜKLEER ANONİM ŞİRKETİ standard GD.AKU.7.4-02-02-0059.
1.21	Certificates for the equipment and component parts (if the products are subject to statutory certification), including in the certification system in the area of the use of nuclear energy.
1.22	Additional documents, in conformity with TS/TA/TR and manufacturing /delivery agreements (contracts).
2	Verification of the accompanying documentation issuance and content correctness.
2.1	Quality plan
	Controlled:
2.1.1	Availability of the signatures of persons, participating in the inspection (with full name) and dates of inspection at each reference point.
2.1.2	Conformity of the reference points inspection dates, specified by the manufacturer's (his subcontractor(s)) representatives, with the dates, specified in the documentation, documented by the enterprise following the conduct of operations, and in the pipeline valves data sheet.
2.1.3	Availability of completion sign-off of inspection jobs and jobs and quality control in the identification table of signatures with print title and full name of all the persons, participating in the manufacturing quality control.
2.1.4	Availability of legally binding signatures of all the persons and (or) reference numbers of the concurring letters of the organizations, participating in the conciliation process in the List of quality Plan development and coordination.

2.1.5	Conformity of the total quantity and nomenclature, specified in the Record of serial numbers and corresponding product data sheets with the instructions of AKKUYU NÜKLEER ANONİM ŞİRKETİ and specification of manufacturing/delivery agreement (contracts).
2.3	Documents recording nonconformities and decisions made
Controlled:	
2.3.1	For Non-Conformity Reports (class and type mismatch B-1, B-2, B-3): - the format for the Non-Conformity Report is in accordance with GD.AKU.8.3-02-02-0051; - All the columns of the mismatch Report have been filled; - the type of the non-conformity is identified correctly, according to the classification of non-conformities GD.AKU.8.3-02-02-0051; - The Non-Conformity Report has been agreed in accordance with the established procedure, according to GD.AKU.8.3-02-02-0051; - All measures for mismatch Report have been executed.
2.3.2	For the Decisions (for non-conformities of class A): - The Decision has been agreed in accordance with established procedure, in accordance with GD.AKU.8.3-02-02-0051; - All measures for the Decision have been executed.
2.4	Accompanying documents
Controlled:	
2.4.1	Compliance of the documents formats with the established requirements.
2.4.2	Completeness of the documents filling in.
2.4.3	Compliance of the information specified in the documents with the actual one.
2.5	Deliverables of technical control
Controlled:	
2.5.1	Compliance of the documents formats with the established requirements.
2.5.2	Completeness of the documents filling in.
2.5.3	Compliance of the information specified in the documents with the actual one.
3	Visual and dimensional inspection of product
3.1	Exterior examination of equipment at convenient spots
Controlled:	
3.1.1	Conformity of product appearance to the requirements of TS/TA/TR, DED.
3.1.2	Conformity of overall dimensions to the requirements of TS/TA/TR, DED.
3.2	Exterior check of welded joints (if welding is available).
Controlled:	
3.2.1.	Absence of defects in welded joints according to PNAE G-7-010 (section 11.2), visible during visual examination: surface cracks of all types and directions; descaling; lapping; weld spatters; burn-through, blowholes, shrinkage cavities; undercuts; faulty fusion; clusters and non-isolated inclusions.
3.2.2	Conformity of joint displacement in abutting joints, height (depth) of low spot between the beads, their surface ripple, concavity of the joint root, isolated surface inclusions of welded joints to the requirements of PNAE G-7-010 (section 11.2).
3.2.3	Availability and conformity of labelling (seals) on welded joints (surfaced parts) to the requirements of the section 10 of PNAE G-7-009 and DED.
3.2.4	Availability and conformity of labelling (seals) on welded joints (surfaced parts) to the requirements of the section 10 of PNAE G-7-009. Conformity of seal numbers on the product to the numbers specified in TB-2, diagram of welded joints and data sheet section "Data on welded joints and surfacing".
3.3	Product internal inspection
Controlled:	

3.3.1	Absence of foreign objects, dirt, water inside the products.
3.3.2	Absence of base metal damage in the form of burns, traces of foreign object impact, defects of machining work, laminations, rust and other defects.
4	Completion and equipment and SPTA quantity conformance inspection
Controlled:	
4.1	Product completion conformity to packing list and TS/TA/TR
4.2	Conformity of the shipped products quantity to specification of the manufacturing/delivery agreement (contract) and Quality Plan.
5	Product preservation, painting, packing and marking conformity inspection. Container conformance inspection (if such inspection is combined with the performance of acceptance inspection), including check of the package marking and phytosanitization documents (if this requirement is included into the supply contract or TS/TA/TR).
Controlled:	
5.1	Labelling (recording capacity) compliance with the requirements of TS/TA/TR.
5.6	Compliance of the product packing and preservation with the requirements of the agreement (contract), OM, TS/TA/TR.
5.7	The duration of temporary corrosion protection of products (according to the Data Sheet) are not less than that one specified in the agreement (contract), TS/TA/TR.
5.8	Conformity of container to the requirements of the drawing, GOST 15150 and TS/TA/TR and the agreement (contract).

