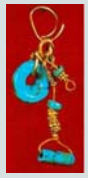
QUALITY ASSURANCE

PAKPAS GROUP OF COMPANIES

QUALITY ASSURANCE HAND BOOK
SAFETY PRACTISES BASICS

Safety comes first



SAFETY PRACTISES AND QUALITY ASSURANCE BOOK

File No: 8829.523.545.591.88

PAKPAS GROUP OF COMPANIES-Almatinskaya Oblast Enbekshi-Kazakshki Rayon, Altin Adam Street 128, Kazakhstan
Telephone: +7 727 306 9060 Fax: +7 72775 40216, Email: info@pakpasgroup.com

REV:02

PAKPAS CONSTRUCTION AND INSTALLATION Co. Inc.

Below companies are authorized to use this specification:

Pakpas Delaware LLC-USA
Pakpas Thailand Company LTD-Thailand
Pakpas Kazakhstan-Kazakhstan
Atlantic Technologies LLC-United Kingdom
Pakpas Romania S.R.L. Iasi-Romania
Pakpas Azeri Ltd Baku Azarbaidjan
IB Pakpas Industrie Bedarf Frankfurt Gemany
MeGlobal Ltd Almaty Kazakhstan
MeGlobaloil LLC-Washington-USA
Rampak Lietuvos-Turkijos Vilnius Lietuva
NordStar Technologies Ltd Dublin-Ireland
Pakpas Construction and Installation Co. Inc.-Turkey

QUALITY ASSURANCE HANDBOOK

☐ **CONTROLLED COPY**
Kontrollu Kopya

☐ **UNCONTROLLED COPY**
Kontrolsuz Kopya

COPY NO / Kopya No : ____

ISSUED TO / Alan :_____

1	**Kounrad Copper Cathode Factory**	Y.B. AYDIN 24/12/2009	**O.Songur**	**O.Songur 25/12/2009**
0	ONAY İÇİN	Y.B. AYDIN 24/5/1996	Y.B. AYDIN 24/5/1996	O.SONGÜR 2/6/1996
REV Revizyon	DESCRIPTION Açıklama	PREPARED BY Hazırlayan	CHECKED BY Kontrol Eden	APPROVED BY Onaylayan

INDEX

1. PAKPAS'S QUALITY ASSURANCE POLICY (4.1.1.)

The objective of PAKPAS is to produce, serve and hand over all of it's products and works in the most appropriate quality for use and the highest quality that it is possible to itself to achieve economically.

High productivity and confidence have been taken as aims to achieve in works performed by PAKPAS by considering the aspects of the Quality Assurance.

PAKPAS exerts continuous efforts to develop and improve concepts and means to assure quality. For this purpose, all staffs of the company are being trained in the matter of decision making and application regarding quality assurance in their own special areas. In addition, PAKPAS ensures flow of necessary information to all departments taking parts in the formation of quality.

PAKPAS performed activities of all kinds necessary for deserving confidence of its clients for maintaining quality of its products and for developing its works.

2. WARRANTY

2.1. PAKPAS İNŞAAT VE TESİSAT AŞ warrants that for every kind of production, erection installation etc. it will undertake, it shall be abide by legal and technical or other instructions by the following procedures required for performance of such specific production and specified in the quality Assurance Manual of PAKPAS. In addition, design, manufacturing and inspection sufficient in terms of safety, quality and functionality are being guaranteed. Conditions required for achievements of these aims are being secured through employment of trained skilled and qualified staff, use of the quality equipment of manufacturing and inspection and organization that brings viability to the same.

2.2. In PAKPAS the administration of quality assurance activities is entrusted to the responsibility of the Quality Assurance Department. Quality Assurance Department which has no dependence with the manufacturing related departments and is directly connected to the General Manager. Personnel, whose functions are indicated in work descriptions, are responsible within their own field of authorization, for performance of procedure specified in this Quality Assurance Manual.

I , as the General Manager of the Company, hereby undertake and guarantee to fulfill the requirements of the Q.A System as well as the company's policies and targets which are mentioned in this manual, on the behalf of the Company Management

General Manager
PAKPAS İNŞAAT VE TESİSAT A.Ş

PAKPAŞ "Quality comes first"

3. FACILITY, DESCRIPTION, SCOPE AND PURPOSE OF THE QUALITY ASSURANCE MANUAL

3.1. PAKPAS is a private company organized and existing under the laws of Republic of Turkey. It's head office is located in Istanbul.

PAKPAS is involved in the turn-key construction of industrial plants, civil construction, mechanical, piping, electrical, instrumentation, erection and fabrication work.

The activities include all that is necessary to complete the construction under contract including construction, erection, material procurement, design, fabrication, examination, inspection, testing etc. according to requirements and specifications of the related contract.

3.2. The Quality Assurance Program has been established by PAKPAS to assure that the required effort, procedures, equipment and management are in compliance with the quality objectives of providing safe and reliable construction, in compliance with the contract/project requirements.

The Quality Assurance Program is designed to provide assurance that all activities affecting the quality are identified and controlled through all phases of the work, to the satisfaction of the Client.

4. DEFINITIONS AND ABBREVIATIONS

4.1. The Company : PAKPAS Group of Companies listed below:

Pakpas Delaware LLC-USA
Pakpas Thailand Company LTD-Thailand
Pakpas Kazakhstan-Kazakhstan
Atlantic Technologies LLC-United Kingdom
Pakpas Romania S.R.L. Iasi-Romania
Pakpas Azeri Ltd Baku Azarbaidjan
IB Pakpas Industrie Bedarf Frankfurt Gemany
MeGlobal Ltd Almaty Kazakhstan
MeGlobaloil LLC-Washington-USA
Rampak Lietuvos-Turkijos Vilnius Lietuva
NordStar Technologies Ltd Dublin-Ireland
Pakpas Construction and Installation Co. Inc.-Turkey

4.2. Head Office : The General Management of the Company, which is located in Bangkok, Thailand.

4.3. The Workshop : Situated at Bangkok , Thailand.

4.4. The Site : The temporary facilities which carry out constructions and/or erection and/or manufacturing operations, contracted both in Thailand and abroad, that are erected separately for each distinct work.

4.5. The Department : Each management or any of their sub-unit, within the Company's Organization makes out a department.

4.6. The Work : Any work which the Company has contracted to complete and which were demanded by other organizations as supply of material and service, engineering and/or manufacturing as well as erection.

4.7. Work Description : A description of a position including the specific duties, responsibility, authority, required training, experience, age limits, the skill level, the units and staff of this position and authority which the position will report to as well as the relationship with the other positions.

4.8. Nonconformity : Any difference contradiction with a contract, specification, relevant code, standard, norm, work order, main and detailed projects and drawings, requisition, purchase orders and their addenda, procedures, tolerance tables, the Quality Plan, Quality Control Plan, "The Company's Quality Control Manual", "The Company's Organization Manual", as well as any fault or conflict at the projects and the technical drawings which are delivered by the customers, which do not comply with the conditions set forth in the Company's procedures and/or Instructions including any conflict between the projects and the results of the design calculations and any contradiction which is observed in detail projects and technical drawings that are base for production. In short it is the non-fulfillment of the specified conditions.

4.9. Nonconformity Evaluation Committee : It is the committee, comprised of the General Manager, Quality Assurance Manager, The Managers who are directly related with the matter and any other manager who is available, where decisions are taken on the corrective and preventive actions in order to evaluate, get rid off and dispose the nonconformity as well as the previous decision are audited. The Chairman of the committee is the General Manager, who shall be replaced with the Quality Assurance Manager in his absence.

4.10. The Quality Assurance Manual : This present manual which is the milestone of the quality system where the Company's quality system and the main quality Fpolicy are described as well as the responsibilities and authorities within the system are defined.

4.11. The Quality Assurance Procedures and Instructions : The procedures and instructions, as an addendum to this manual, wherein the rules to be followed and implemented in order to fulfill the requirements of the quality manual, the operational methods and inter-departmental relationships as well as the responsibilities and authorities of the relevant staff are defined.

4.12. Detailed Procedures and Instructions : The procedures and instructions which are issued and published, as an addendum to the quality procedures, either for general purpose or special purpose for a particular work, wherein the rules, the criteria, the operational principles and the relationships to be followed and implemented during the operations under the quality procedures and/or in order to fulfill the requirements of the quality procedures in detail as well as the responsibilities and authorities of the relevant staff are defined.

4.13. The Specifications : The document which are issued and published for general purpose or for a specific purpose for a definite order, prescribing in detail the conditions which a product, semi-finished product or a material or a service must conform with, wherein reference is made to a technical drawing sample or other relevant documents and/or codes and /or norms and/or standards, or which covers same , and defining the control criteria of conformance.

4.14. The Quality Plan : It is a general plan at the standard format, issued on the basis of this Quality Assurance Manual, describing to which criteria , how, when and who will conduct verification and approval action at the phases of the contract signing, designing, supply of material and service, manufacturing, inspection and tests, shipment, erection and delivery of a work to customer.

4.15. The Quality Control Plan : It is a plan, issued on the basis of this Q.A. Manual, the relevant contract, specification and/or the relevant code and /or standard, and/or norm, describing to which criteria, how, when and who will conduct the verification and approval actions in lieu with the phases of manufacturing and erection,

pertaining to the required tests and controls which are to be performed during the phases material incoming, pre-manufacturing, manufacturing, final inspections, before and in-situ erection and delivery of each work . The Quality Control Plan is different for each different work because in each case different codes and/or standards and/or norms are taken and/or customer requirements are distinctive in each case. Therefore it is issued separately and specifically for each work.

4.16. **The General Work Schedule** : It is the work schedule , issued on the basis of this Q.A. Manual, wherein the items as designing, material and service supply, manufacturing, shipment, erection and delivery to customer of a particular work are indicated on a time schedule, at weekly, monthly and annual basis.

4.17. **The Detailed Work Schedule** : It is the work schedule wherein the phases of engineering, manufacturing and/or erection of a particular work are indicated in detail on daily and/or weekly and monthly basis.

4.18. **The Internal Auditor** : They are the company staff who audit on a schedule if the company's Quality System Documents are implemented in conformity with the Company's Quality System and ISO 9001 Standard, and who report the same to top management.

4.19. Abbreviations :

4.19.1	GM	General Management
4.19.2	GMNR	General Manager
4.19.3	QAM	Quality Assurance Management
4.19.4	QMNR	Quality Assurance Manager
4.19.5	PM	Project Management
4.19.6	PMNR	Project Manager
4.19.7	EM	Engineering Management
4.19.8	EMNR	Engineering Manager
4.19.9	IA	Inspecting Authority
4.19.10	QP	Quality Plan
4.19.11	QCP	Quality Control Plan
4.19.12	NCR	Nonconformity Report
4.19.13	NEC	Nonconformity Evaluation Commitee
4.19.14	PO	Purchase Order

5. REFERENCES

5.1. ISO 9001-1994

The item standard are referred as a reference in this Q.A. Manual in parentheses at the and of each heading.

5.2. ISO 8402-1994

5.3. PAKPAS GROUP COMPANIES Q. A. Manual (This Manual)

5.4. PAKPAS Procedures and Instructions

6. QUALITY ASSURANCE MANUAL PREPARATION, REVIEW AND ISSUE (4.2)

6.1. Responsibility :

6.1.1. The Quality Assurance Manager shall be responsible for the preparation, content, approval, publication, issuance, maintenance, implementation and revision of this Quality Assurance Manual and thereto.

6.1.2. All managers are responsible for full and correct implementation of this Q.A Manual.

6.2. Authority :

6.2.1. QMNR has the authority to prepare, make ready for approval, publish, distribute and revise this Q.A Manual.

6.2.2. This Quality Manual shall come into effect by the approval of GMNR. The approval of GMNR shall be valid when the section titled "Approval" on the cover page is signed and dated by GMNR.

6.3. Implementation :
The contents of this manual shall be implemented as they are, in due consideration of the prescribed rules and principles, without any comment and rearrangement.

6.4. Publishing and Distribution :

6.4.1. The original copy of this manual has been prepared and published in Turkish Language.

6.4.2. In case of any dispute in the translated copies, the Turkish copy of this manual shall prevail.

6.4.3. It is forbidden to publish, reproduce, transmit or disclose any information contained in this Quality Assurance Manual without the expressed permit of the Quality Assurance Manager.

6.4.4. The Quality Assurance Manual shall be returned upon written request of the Quality Assurance Manager.

7. CONTROLLED AND UNCONTROLLED COPIES OF Q.A. MANUALS

The Quality Assurance Manuals shall be classified in to controlled and uncontrolled copies.

7.1. Controlled Copies :

7.1.1. The controlled copies of this manual shall be published and distributed in accordance with a document distribution list, in enclosure to a Document Distribution Notice, within the company ONLY.

7.1.2. The controlled copies shall be maintained current with all the latest revisions.

7.1.3. Each controlled copy of this Q.A. Manual shall be allocated a unique copy number. This number and the name of the recipient Managers and Department Heads shall be recorded on the cover page of each Manual and on the Distribution list.

7.1.4. The controlled copies of the revised page or pages of this Q.A. Manual shall be issued and distributed in enclosure to the Document Distribution Notice at the quantity of the previous circulation, in accordance with the relevant Document Distribution Record.

7.2. Uncontrolled Copies :

7.2.1. The uncontrolled copies are copies which are current at the time of issue and issued outside the Company for reference only as determined by the Quality Assurance Manager, and need not be maintained current.

7.2.2. Issue and distribution of uncontrolled copies shall be made only to external companies, customers, Inspecting agencies, etc.

7.2.3. Each uncontrolled copy of this Q.A. Manual shall be allocated a unique copy number. This number and the name of the recipient company or its representative shall be recorded on the cover page of each uncontrolled copy of the Q.A. Manual and on the Distribution list. and on the Document Transmittal Form.

8. QUALITY ASSURANCE MANUAL REVISION (4.5.2)

8.1. Q.A. Manual shall be subject to revision due to the following reasons.

8.1.1. Revisions due to the amendments in ISO 9001 Standard.

8.1.2. The Q.A. Manual is reviewed once a year due to the dynamic structure of the company and revised if necessary.

8.1.3. The customer/contract requirements shall be checked by QMNR for possible changes to the Quality Assurance System and the Quality Assurance Manual. Any revision to the Quality Assurance Manual shall require approval from GMNR.

8.1.4. Quality Assurance Manual revision may be required as a result of contract requirements on by other reasons such as by a change in the company organization

or for improvements of the system. Revision requests by difference units, if any shall be made to QMNR in writing. Revisions will only be made by the QMNR and implemented only after issuing.

8.2. Quality Assurance Manual revision shall be controlled by section as a unit, including exhibits belonging to the section.

The latest revised area (does not include grammatical correction) shall be identified by a vertical line drawn in the left hand margin along the revised text.
The latest revision number shall be indicated on each page of section.

8.3. The Index of the Quality Assurance Manual shall be identify the current status of revisions.

8.4. The Q.A. Manual will be used at its current status unless and approved revision is issued.

9. QUALITY ASSURANCE MANUAL DISTRIBUTION CONTROL (4.5.1)

9.1. The Quality Assurance Manager shall designate Quality Assurance Manual Holders on the Manual Distribution Record.( )

9.2. The Quality Assurance Manager shall distribute copies of the Quality Assurance Manual (or revised section) to the designated Manual holders. He shall include a Manual Distribution Notice in each distribution. All copies of the Quality Assurance Manual shall be identified with consecutive copy numbers.

9.3. Each Manual Holder who receives a controlled copy shall sign and date the notice and return a copy of it with any obsolete sections to the Quality Assurance Manager.

The Manual Distribution Notice will then be inserted in the front of the Quality Assurance Manual. The acknowledged notice shall be obtained latest within 1 (one) month from the sent date from the outside recipients and 1 (one) week from the company recipients.

A Manual Holder who does not comply with repeated requests for on acknowledged notice over said period will have his manual picked up as determined by Quality Assurance Manager.

9.4. Controlled copies of this manual shall not be issued and distributed to external companies.

9.5. However, when need arises, issue and distribution of controlled copies to external companies should only be made by the direct order of GMNR or upon request by QMNR and approval by GMNR, under control and knowledge of QMNR. In such case the following method shall be applied.

9.5.1. The recipient of this Q.A. Manual shall sign and date the relevant box appearing on the document Transmittal Form and return the original form to QMNR.

9.5.2. If acknowledgment of receipt of a Q.A. Manual is not received within Twenty days of issue, QMNR shall contact the recipient and request return thereof within seven days.

9.5.3. If Document Transmittal Form is not returned by the recipient or no written acknowledgment of receipt is received further seven days, than that Q.A. Manual shall directly revert to an "uncontrolled" status.

9.6. The Quality Assurance Manual Holder shall keep records on the Manual Distribution Record of each distribution and receipt confirmation, including recall of obsolete copies.

He shall destroy all obsolete copies except those retained by the Quality Assurance Manager for the purpose of maintaining revision history and they shall be stamped void.

9.7. The Quality Assurance Manager shall maintain and provide 1 (one) controlled copy at the field site office.

10. SUPPLEMENTS TO THE QUALITY ASSURANCE MANUAL

Supplements to the Quality Assurance Manual may also be issued by the Quality Assurance Manager, based on new developments and/or requirements. Supplements shall not negate any of the contract requirements or this manual. A procedure similar to the one for revisions will be used for issuing supplements.

11. MANAGEMENT RESPONSIBILITY

11.1. SCOPE

This section identifies PAKPAS's organization and describes the general authority and responsibilities of the management personnel involved in this Q.A. manual.

11.2. ORGANIZATION (4.1.2.)

PAKPAS company organization is shown in Enclosure 1, It. ensures sufficient authority and organizational freedom for personnel performing Quality Assurance / Control functions to identify quality problems and to initiate, recommend and provide solutions to these problems. The specific authority and responsibilities of the management personnel. as related to quality assurance activities, involved in the Quality Assurance System are defined in the applicable sections of this manual. Their representative authority and responsibilities are as described in paragraph 11.3 of this section.
In this Q.A. manual, where a department section or unit is mentioned it is understood that, the responsibility for the stated function lies with the department manager, chief engineer or engineer respectively. In all cases, the manager of each department shall have overall authority and responsibility for activities performed within those department. All the managers may delegate their authority to their subordinates but shall retain the responsibilities.

11.3. AUTHORITY AND RESPONSIBILITY (4.1.2.1.)

11.3.1.General

Personal authority and responsibility shall be defined in the PAKPAS Organization Manual. Authority and Responsibility of the Departments as follows.

11.3.2. Engineering Department

PAKPAS Engineering Department has been established and fully organized to perform the engineering and detailed design work for the turnkey projects undertaken by PAKPAS. The main disciplines for which the design works being carried out are electrical, instrumentation and piping. For maintaining its duty at the highest level of required quality, the engineering department is equipped with the necessary facilities such as the technical library, experienced workmanship, hardwares and softwares. Besides it has the possibility to make use of its own archive furnished with the numerous amounts of technical standards, specifications and typical drawings for many equipments and systems which have been designed and used in our former projects.

The duties of this unit are as follows:

1) to perform project design works necessary for manufacturing and erection and to execute technical calculations.

2) to study literature when and if required,

3) to prepare testing arrangement when required.

Moreover, it falls upon the duties of this department to execute technical works when proposals are to be prepared and to provide counseling services in technical fields to other departments when these are required.

2. Method Of Production

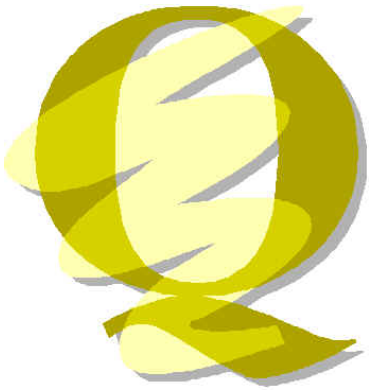
Engineering department has the capacity of utilizing the hardwares, softwares and staff stated below for fulfilling the design activities.

SOFTWARES

AutoCad Release 12	2 EA.
AutoCad Release 13	2 EA.
AutoCad LT Release 2	3 EA.
Eda Designer Release 12	2 EA.
Eda Isometrics Release 12	1 EA.
Eda P&I D Release 12	1 EA.
Rebis Designer Release 13	2 EA.
Rebis Isometrics Release 13	2 EA.
Rebis P&I D Release 13	2 EA.
Primavera	1 EA.
Conval	1 EA.
MS Project Latest issue	1 EA.
MS Word	1 EA.
MS Excel Latest Issue	1 EA.
Quicklink 2 Latest Issue	1 EA.
PC Anywhere Latest Issue	1 EA.

11.3.2.2 Mechanical & Civil Works Responsibilities

From a general point of view, the main activities in detailed design work performed in engineering department for each discipline may be summarized as below :



1.1. Piping

1.1.1. Equipment layout plan
1.1.2. Piping instrumentation diagrams
1.1.3. Piping specifications
1.1.4. Piping layout plans
1.1.5. Line lists
1.1.6. Piping isometric drawings
1.1.7. Pipe supports

1.2. Architectural

1.2.1. General layout
1.2.2. Facade views
1.2.3. Section drawings
1.2.4. Floor layout drawings
1.2.5. Finishing schedule
1.2.6. Window and door details

1.3. Civil

1.3.1. Foundations
1.3.2. Static and dynamic calculations
1.3.3. Formwork details
1.3.4. Reinforced concrete details
1.3.5. Structural steel calculations and design
1.3.6. Structural steel shop drawings
1.3.7. Paving
1.3.8. Drainage system, cable channel

11.3.2.2. Electrical Works Responsibilities

Design and drawing of the following documents in accordance with the IEC standards,language, units and dimensions are set according to the contract requirements :

1. General Electrical Standards
- Motor control station and installation details
- Lighting, fixtures and installation details
- Grounding system
- Lightning system

2. Electrical Distribution System HV,MV and LV
- One-line diagram
- Wiring diagram
- Terminal strip diagram
- List of components
- Panel layout
- Power and control cable layout
- Cable list
- Cable tray / ladder layout

3. Lighting System
- Lighting layout
- Panel wiring and terminal strip diagrams

4. Grounding Layout

5. Lightning Layout

6. Communication System
- One-line diagram
- System layout

7. Fire Alarm System
- One-line diagram
- Fire alarm system layout

8. Bill of Material

9. As-Built Drawings
Each modification of all the related drawings are updated by the Construction/Start-up Electrical supervision team.

10. Each document has a title page and a revision Index sheet.

Installation
All installation works are carried out in accordance with the above listed standards, any local regulations and supplementary documentation under the supervision of the Site Engineers.

Test
The test procedures are carried out in accordance with the Quality Assurance and Control standards.

11.3.2.3. Instrumentation Works Responsibilities

Design and drawing of the below listed documents with CAD system (version 12 and 13) in accordance with ISA standards. Language, units and dimensions are used according to contract requirements.

- Process and Utility P& ID.s
- Loop diagrams with loop allocation
- Instrument list
- Instrument general specifications
- Data sheets for procurement of all instruments including field and control room
- Calculation sheets for safety valves, control valves, orifice plates, restriction orifices and others
- Level hook-up sketches
- DCS functional description
- Interconnection drawing with buses (data link cables) between DCS and/or PLC
- Main cable routing showing cable tray and conduits in detail
- Detailed main control room and auxiliary control room layout
- Power distribution drawings
- I/O card wiring principles for DCS or PLC
- Control room cabinet equipment drawings
- Installation specification

- Process, steam tracing, instrument air hook-up drawings

- Instrument air layout with feeders
- Key of installation material
- Bill of material
- Definition of interlocks as logic diagrams
- Terminal block wiring diagrams
- Junction box wiring diagrams
- Cable schedule with cable take-off
- Installation standards and details
- Grounding drawings in coordination with electrical department
- As built drawings: Each modification of all related loops are updated by the construction/start-up instrumentation supervision team.

1. For the documents including more than one page, a title sheet and a revision index sheet are prepared showing the revised sheets individually.

2. Each document has columns showing the name and signature of people in charge of execution, check and approval, separately.

3. All procurement activities, transportation and insurance for instruments, systems and panels are carried out by Purchasing Department under the control of the Purchasing Coordinator.

Installation

1. All installation works are carried out in accordance with standards listed above and in accordance with any local regulation and supplementary documentation.

2. Before installation, each instrument or item is inspected to check that it has been pre-tested in accordance with the Instrument Installation Test Procedure.

Test And Calibration

1. Test and calibration procedures are carried out by 2 skilled personnel in accordance with the Quality Assurance and Control Standards arranged by the specific department.
- Calibration of instruments individually
- Pressure testing of process leads for instruments
- Isolation and continuity testing for all cables
- Set pressure testing on bench for safety valves
- Pressure testing of air supply piping and transmission / signal tubing
- Loop testing for all loops
- Verification of instrument installation made by others(for in-line instruments)

2. Tools used for test and calibration procedures are as follows :
- Portable digital pressure calibrator
- Portable electronic calibrator
- Deadweight tester
- Resistance thermometer
- Hand pump
- Liquid column manometer
- Multimeter

3. Skilled technicians are assigned for maintenance and repair services.

11.3.3. Purchasing Department

Semi-finished products, products, welding electrodes and filler materials, auxiliary materials, some tools and spare parts, instruments, testing materials are procured by the Purchasing Department, characteristics of these materials are expected to bear are made known on time and in detail by departments placing orders to Purchasing Department and for information to Q.A. department.

The Purchasing unit exerts efforts for procuring the materials ordered on time and in characteristics as requested. In the event the materials found fail to meet requirement, the Q.A. department and Purchasing department and the department which has placed the order make a joint decision on whether materials meeting partially the requirements would be accepted or otherwise and establish which additional tests would be applicable if such materials would be accepted. If a problem arises as quality of materials of which delivery is taken, the Purchasing department discusses with the Q.A. department on modifications to be brought on materials purchased or on reproduction of the same.

Orders fulfilled regularly and without defect are entered for which a file card to be signed by warehouse keeper and Q.A. department inspector is taken by the Purchasing department for conveyance to accounting department. The Purchasing department procures technical brochures and catalogues from supplier firms for the relevant departments.

The Purchasing department makes available the list of the supplier firms whose supplies meet as close as possible the characteristics sought by the firm in procurement of materials. The list compromises in the some time characteristics of the firms.

11.3.4. Q.A. Department

The Q.A. Department, subordinated directly to the General Directorate, having no dependence with the manufacturing related departments, is responsible for executions of decisions taken within the frame works of the quality assurance activities.

The staff of Q.A. Department carry out necessary inspections on sites and conduct their activities in store houses, by vendors and sub-contractors.

The Q.A. department is obligated to under take recommending and planing functions in each and every case that has effect on quality of products.

Characteristics of the responsible person for quality Assurance Department and his staff are perquisites for ensuring the completion of Q.A. activities. These characteristics of personnel re indicated in work descriptions, (Section.V..)

Operational field of Q.A. department compromises the following.

1. **Material**

- Conducting Material Certification tests in accordance with related standards and preparation of Material Test Certificate.
  - . Tensile test
  - . Bending test
  - . Charpy-V impact test
  - . Pipe ring opening test
  - . Pipe ring flattening test
  - . Hardness test
  - . Chemical analysis

- Inspection of incoming materials quality
- Restamping of certified cut materials
- Preparation of non-conformity reports
- Check of certificate and material's conformity

2. Welding

- Preparation of welding Procedure Specification (WPS) in accordance with code requirements, customer specifications and joint design.
- Conducting Welding Procedure Qualification preparation of Procedure Qualification Record. (PQR) (i.e. ASME SEC.IX). A.D. MERKBLAETTER HP2/1 EN-288 etc.)
- Conducting Welder's Performance Qualification Tests in accordance with related code and standard and preparation of Welder's Performance Qualification Certificate. (i.e. ASME SEC IX, EN 287-1 etc.)
- Conducting production weld tests.
- Check of welding consumable.
- Supervision of preheat, Postweld Heat Treatment welding parameters and welder's stamp.
- Preparation Welding Specifications for various type of material and processes.
- Conducting Mechanical tests of weld such as.
  - . Tensile test
  - . Bending test
  - . Chary-V impact test.

3. Non Destructive Testing

- Preparation Nondestructive Testing (NDT) procedures.
- Performing NDT test such as;
  - . Visual examination
  - . Dye Penetrant test
  - . Magnetic Particle test
  - . Radiography
  - . Hardness test
  - . Leak test
  - . Ultrasonic Flaw Detection
  - . Ultrasonic thickness measurement
  - . Coating thickness measurement
  - . Measuring ferrite content of Austenitic stainless steel.

4. Civil Works

- Performing soil tests such as;
  - . Plate load test
  - . Soil classification
  - . Particle size distribution
  - .Moisture/density ratio (proctor test)
  - .Bulk density test of sand.

-Performing concrete tests such as;
  - .Chemical analysis of water
  - .Aggregates fire/coarse analysis
  - .Cement chemical/physical analysis
  - .Concrete mix design analysis.
  - .Compression load test.

-Conducting steel bar and mesh tests and chemical analysis.

IF YOU KNOW HOW TO CALCULATE AND USE EVERY MATERIAL IS SAFE ENOUGH

5. Manufacturing, Erection, Piping, Mechanical Installation, Electrical, etc.

- Preparation of Quality Programs (plans) considering manufacturing Codes and customer's specifications (ASME, API, ANSI, AD MERKBLAETTER etc.)
- Preparation Post Weld Heat Treatment work order.
- Performing of the test and inspections in accordance with the manufacturing code and Quality Program.
- Preparation of data file which including all of certificates, inspection and test certificates,

6. Quality Assurance

- To develop written inspection procedures and methods in accordance with code or customer's requirements.
- Introduction to quality assurance system and its development.
- Activities to be conducted in stages of bid invitation and after submission.
- Check of measurement tools and testing devices.
- Examination of work and process descriptions.
- Develop department standards and procedures for receiving inspection, material certifications, welding material verification and certification, welding consumable control, handling storage and delivery.
- Searching for reasons of deviations if such appears.
- Ensuring examination and solution of the matter in cooperation with relevant department in cases where deviations occur.

- Expressing opinions as to selection of methods of manufacturing, measurement and testing devices utilized by other departments or sub-contractors taking into consideration conditions to assure quality.
- Preparation of data and documents of costs relevant to quality Assurance activities (statistical data)
- Training and supervision of Technical personnel.

7. Purchasing

- Assist to development of purchasing standards and required certification of welding consumable supplies.
- Evaluation of present or potential Vendors and sub-contractors.

11.3.5. Administrative And Finance Department.

It has the overall responsibility and authority for administrative and finance matter. Arranging for transport, accommodation, permits, gate passes for the personnel; keeping personnel records; organizing Guarding and safety, matters, time keeping of the personnel; health services. The main task of this department under the heading of "finance" is to keep the account records of the company and cash requirements. Payment of salaries to the personnel; payments to the subcontractors, for the rented equipment, to the market is among its finance tasks.

11.4. RESOURCES (4.1.2.2.)

11.4.1. The company has sufficient and appropriate resources which are required to fulfill the quality policies and attain the quality targets.

11.4.2. Resources shall be allocated on a time based schedule.

11.4.3. Company shall closely follow the objectives related to new products, processes, services and customer demands as well as market situation, parallel to the technological developments, and increase its resources in quality and quantity if so required.

11.4.4. In case additional resources are necessary for verification activities which cover designing , engineering, manufacturing, delivery, erection, installation and service operations as well as product inspection, measurement, testing and supervision, sub-contractors shall be employed who have trained personnel and adequate resources.

11.5. MANAGEMENT REPRESENTATIVE (4.1.2.3.)

11.5.1. QMNR shall represent the company management in quality issues. QMNR directly reports to GMNR in fulfilling the requirements of this Q.A. Manual and ensuring maintenance thereof.

11.5.2. QMNR is responsible for establishment and management of the quality system in an efficient and adequate manner, pursuant to the policies and targets, defined by company's top management and ISO 9001 standard. He is also responsible for implementing developing and maintaining the system as well as having the required conditions fulfilled with full authority.

11.5.3. QMNR ensures and supervises timely and efficient execution of quality activities which are conducted by various departments in the Company, in order to coordinate the quality system, to solve the existing nonconformities in the quality system rapidly and to ensure fulfillment of the conditions of the system.

11.5.4. Relationship of the company with third parties as customers, independent authorities , external workshops, sub-contractors etc. with regard to the company's quality system is also under the authority and responsibility of QMNR.

11.6. MANAGEMENT REVIEW (4.1.3)

11.6.1. For the purpose of ensuring conformity of the quality system with ISO 9001 standard as well as its efficiency and maintenance, the company's quality policy, targets and overall quality system shall be reviewed twice a year by Nonconformity Evaluation Committee (NEC), comprised of GMNR and Managers or by QMNR on behalf of Management, or by internal auditors or by

the managing personnel who are commissioned by GMNR and who have direct responsibility in terms of quality. Management reviews shall be done in April -March and April and September-November of each year.

11.6.2. The general review covers evaluation of the results pertaining to implementation of the preventive and/or corrective decisions which were taking during previous reviews as well as to company internal audits, external audits by third parties, other relevant supervisions, inspections and reviews. It also covers reporting and recording of the results.

11.6.3. Decisions for review shall come into effect by the approval of GMNR or by QMNR, if so commissioned.

11.6.4. All records and reports, which are kept and issued with regard to the decisions taken during reviews as well as the preventive and/or corrective actions taken as a result of the decisions, shall be retained, maintained and kept in custody by QMNR .

12. QUALITY ASSURANCE SYSTEM (4.2)

12.1. GENERAL : (4.2.1.)

The quality system which was established according to the requirements of the PAKPAS' Quality Policy and ISO 9001 Standard for the purpose of ensuring the product to conform to the specified requirements, has been documented with this Q.A. Manual, other manuals of the Company, procedures and Instructions.

12.2. QUALITY ASSURANCE SYSTEM DOCUMENTATION (4.2.2.)

12.2.1. Quality Assurance System Documentation compromise of the following

12.2.1. PAKPAS Q.A. Manual. (This Manual)
12.2.2. Other Manuals Of PAKPAS.
12.2.3. PAKPAS Quality Procedures and Specifications.
12.2.4. PAKPAS Quality Forms.
12.2.5. National and/or International Codes , Standards and Norms.
12.2.6. Specifications, codes, standards, norms related with products and procedures, etc. which are delivered by customers.
12.2.7. Quality Plans, Quality Control Plan, Design Outputs, Procedures and specifications which are specified to the work and documented by the PAKPAS:

12.2.2. The approved originals of PAKPAS Manuals, Procedures and forms shall be kept under the custody by QMNR, whereas the controlled copies thereof will be controlled and kept under custody by the managers or heads of departments to which the copies are distributed.

12.2.3. Each manual, procedure, specification, and standard form will be allocated a document number.

12.3. QUALITY PLANNING

12.3.1. Company shall define and document how the requirements for quality for each new particular work will be met, through related departments within the framework of existing procedures and specifications.

12.3.2. After any particular work is contracted, the related activities shall be commenced for any of the following actions as required, in the possible shortest time in order to fulfill the requirements of the contracts, considering results of reviews which are made for the work in question during bidding and/or contract signing.

12.3.2.1. Issue of Quality Plan
12.3.2.2. Issue of Quality Control Plan
12.3.2.3. Issue of the plan pertaining to realization of manufacturing and/or installation of the work, and issue of the general and detailed work schedule.
12.3.2.4. Designing Activities
12.3.2.5. Purchasing Activities
12.3.2.6. Identification and acquisition of any inspection, process, control and test equipment, fixtures, manufacturing resources and their skills that may be need to achieve required quality.
12.3.2.7. Ensuring interaction among designs, manufacturing methods, assembly inspection and test procedures, instructions and applicable test procedures.

12.3.2.8. Whenever required, supply of new equipment and tools and updating inspection and test techniques and facilities.
12.3.2.9. Defining any measurement requirement and its related method which are beyond the available capacity and availability for which supply of required equipment and needs elapse of time.
12.3.2.10. Defining appropriate verification methods, which are to be applied at required stages of manufacturing.
12.3.2.11. Clarification of the required acceptance standards, so as to cover subjective issues as well, which are required for all requirements and specifications but not indicated in relevant codes and/or standards and/or norms or contract documents.
12.3.2.12. Defining and issue of Quality Records

13. BIDDING AND CONTRACT DOCUMENTS REVIEW (4.3)

13.1. GENERAL (4.3.1)

13.1.1. All bidding documents and contracts as well as their addenda shall be reviewed, as a basis for the verification, in order to remove any fault or mistake, which likely arise from their contents and coordination.

13.1.2. Review shall be made in conformity with the Bidding Documents and Contract Review Procedure

13.2. REVIEW (4.3.2)

Review shall be made during two different phases,
a) Bidding
b) Contract Signing

13.2.1. DURING BIDDING

13.2.1.1. At this stage, all documents which are the bases for the offer, contained in customer demand and its addendum or in tender file will be reviewed in order to evaluate customer demand and to fulfill thereof in all respects.
13.2.1.2. During review, the following shall be ensured .

13.2.1.2.1. The requirements are adequately defined and documented
13.2.1.2.2. Adequacy of the Company's capability to fulfill the requirements
13.2.1.2.3. Evaluation of the requirements which are included within documents, relevant codes and/or standards and/or norms according to the existing capacity and availability
13.2.1.2.4. Defining costs and times of supply of inspections, processes, control and test equipment, fixtures, manufacturing and installation resources and their qualifications which might be needed to attain the required quality.
13.2.1.2.5. Defining the demand and related method for which supply of required equipment and tools is a matter of time and which are beyond the existing facility and capacity.

13.2.1.2.6. Defining the capacity of external workshops, their cost and time of supply for the manufacturing processes and phases which are beyond existing facility and capacity.
13.2.1.2.7. Determining availability and time of supply of required materials, services and resources.
13.2.1.2.8. Qualified and trained personnel.

13.2.1.2.9. Determining the acceptance standards which are not included in the relevant codes and/or standards or norms or documents which are the basis for all requirements and specifications.
13.2.1.2.10. Evaluation of the manufacturing period according to the existing work load.
13.2.1.2.11. Evaluation of financial and administrative requirements.
13.2.1.2.12. Erection site, existing facilities, site visits and receipt of offers for erection from sub-contractors.
13.2.1.2.13. Requirements for storage, handling, protection and delivery.

13.2.1.3. Discrepancies and nonconformities which occur as a result of the reviews, as well as any comment, explanation, objection and/or suggestions regarding corrective and/or preventive actions to remove them shall be recorded and indicated in the quotation as the counter-proposal of the company.

13.2.2. DURING ORDER AND CONTRACT

13.2.2.1. All order and contract documents will be reviewed before they are accepted and confirmed.

13.2.2.2. During review, the letter of offer and tender documents, belonging to the order or the contract in question will be compared with documents of order or contract, considering the records kept.

13.2.2.3. The followings will be ensured during reviews :

13.2.2.3.1. Requirements shall be adequately defined and documented.
13.2.2.3.2. Any difference between the contract or order requirements and those in the tender are resolved.
13.2.2.3.3. The capability of the company to meet additional and/or different requirements, if any.

13.2.2.4. When verbal orders are received, company shall issue a contract or a protocol and sign it mutually with the customer or send a quotation for confirmation in order to record all of customer requirements and to secure a mutual agreement.

13.3. REVISION TO A CONTRACT (4.3.3.)

13.3.1. Before the revisions in the order and/or contract and their addenda which are required later by the customer and/or the independent inspection authority are accepted, they are reviewed by related departments of the company.

13.3.2. During reviews, such matters as fulfilling the requirements by the company's own capability, their effect on work completion during contract term and on cost etc. will be considered.

13.3.3. The verbal revisions shall only be made by a mutual written agreement between the company and the customer.

13.3.4. These revisions shall be conveyed in writing to all related departments of the company at the possible shortest time.

13.4. RECORDS

Comments and records pertaining to review of offers, contracts and orders shall be retained, maintained and kept in custody Contract Manager and Project Manager or at the related work file by Engineering Manager or Project Manager under the terms and conditions set forth under article 26. (4.16)

14. DESIGN CONTROL (4.4)

14.1. GENERAL (4.4.1)

Where the designing operations are under the Company's responsibility, the design of the work shall be made , reviewed, inspected and verified in order to ensure that the requirements of the order and/or contract are met, according to the already documented procedures and instructions.

14.2. CODES, AND STANDARDS

The latest edition of codes, instructions, specifications and rules in use is valid for each and every type of construction.

The major codes and standards are as follows

TSE	(TURKISH STANDARDS INSTITUTE)
ASME	(AMERICAN SOCIETY FOR MECHANICAL ENGINEERS)
API	(AMERICAN PETROLEUM INSTITUTE)
AWS	(AMERICAN WELDING SOCIETY)
AD-MERKBLATTER	(GERMAN STANDARDS)
EN STANDARDS	(EUROPEAN STANDARDS)
DIN STANDARDS	
GOST STANDARDS	(RUSSIAN STANDARDS)
PAKPAS WELDING SPECIFICATIONS	
PAKPAS NDT PROCEDURES	
PAKPAS'S ENG STANDARDS	


«STANDARD - TEST» CERTIFICATION SYSTEM FOR WORKS, SERVICES AND QUALITY MANAGEMENT SYSTEMS

APPROVAL CERTIFICATE

Issued to Closed Joint Stock Company «Special Setup and Installation Trust «Spetsmashmontazh»

THE PRESENT CERTIFICATE CONFIRMS THE SYSTEM OF QUALITY MANAGEMENT

SATISFIES REQUIREMENTS OF GOST R ISO 9001-2001 (ISO 9001:2000)

№ 019351

The Quality Assurance department is under the obligation of distributing the latest edition of the codes and specifications to other departments and of collecting those norms not in effect.

14.3. DESIGN AND DEVELOPMENT PLANNING (4.4.2)

14.3.1. Preparation of technical documents and drawings is conducted in close cooperation between design department, technical department, project managers and Quality Assurance department.

14.3.2. These revision services allow bringing modifications as customer request. Along with this, norms in effect, norms set by the corporation, instructions and specifications are taken into view.

14.3.3. Drawings are prepared by design engineers and designed as draft drawings pursuant to aforesaid documentation. Detailed drawings are drawn by tracers and are signed by design engineer and Engineering Manager, Further, drawings are checked in terms of conformity to testing and welding technology by Quality Assurance Department.

14.4. THE INTERNAL AND EXTERNAL INTERFACES (4.4.3)

14.4.1. Engineering Manager shall provide internal interfaces between himself and other departments, as well as external interfaces between the company and the customer , independent inspection authority, advisors and consultant companies.

14.4.2. Any correspondence and document pertaining to these interfaces shall be kept in custody, periodically reviewed and if required, distributed to relevant departments by Engineering Manager.

14.5. DESIGN INPUT (4.4.4)

14.5.1. Design requirements and inputs of the work shall be defined , documented , reviewed and approved as required by the customer and/or design code or standard or norm, including applicable statuary and regulatory requirements. Incomplete, ambiguous or conflicting requirements shall be resolved within the company and/or with the customer before they are used.

14.5.2. The design inputs which are supplied by the customer shall be evaluated together with the results of reviews, which were previously made for that particular work during and after bidding and contract

14.6. DESIGN OUTPUT (4.4.5)

14.6.1. The results of the completed design output shall be documented together with the calculations compromising design inputs, analyses, data sheets, drawings materials, purchasing specifications etc.

14.6.2. The information on these documents shall be indicated in the manner to constitute a base for design verification and validity against design requirements.

14.6.3. Design output shall

14.6.3.1. Meet and comply with the design requirements,
14.6.3.2. Indicate or refer to acceptable criteria,

14.6.3.3. Identify those characteristics of the design that are crucial to safe and proper functioning of the product (e.g. operating, storage, handling, loading, unloading, protection, maintenance, and delivery requirements etc.)

14.6.4. Design output documents shall be reviewed before release as per Art 14.7.

14.6.5. The company shall not be released from the design responsibility even if the design as fully or partially done by a sub-contractor on behalf of the company.

14.7. DESIGN REVIEW (4.4.6)

14.7.1. Design results shall be planned and reviewed at appropriate stages of design, and/or after completion of design.

14.7.2. Design review shall be performed by the related Company personnel and/or other specialist personnel ,if required.

14.7.3. Records shall be retained, maintained and kept in custody as per Art.26.

14.8. DESIGN VERIFICATION

14.8.1. At appropriate stages of design, design verification shall be performed to ensure that the design stage output meets the design stage input requirements.

14.8.2. Design verification covers the following activities :

14.8.2.1. Reviewing again general design outputs (if required)
14.8.2.2. Performing alternative calculation, if necessary
14.8.2.3. If possible, comparing the design outputs with a similar proven design.
14.8.2.4. If possible, undertaking tests and inspections, and demonstrations if required.

14.8.3. Records shall be retained, maintained and kept in custody as per Art.26.

14.9. DESIGN VALIDATION (4.4.8)

14.9.1. Design validation follows design verification as per Art. 14.8. (4.4.7)
14.9.2. However, in order to ensure that product conforms to defined user needs and/or requirements, some or all of the below defined inspections and/or tests shall be applied during manufacturing stages and/or after product completion as described under the contract.

14.9.2.1. Nondestructive and/or destructive inspections and tests.
14.9.2.2. Inspections and/or tests under actual operation and/or simulated condition, (hydrostatic, pneumatic, vacuum tests etc.)
14.9.2.3. Special inspections and tests under actual operational conditions and/or environment.
14.9.2.4. Performance tests and controls after commissioning.

14.10. DESIGN CHANGES (4.5.9)

14.10.1. Changes and modifications shall be made according to the documented procedures.

14.10.2. All design changes and modifications shall be indicated on the changed document and shall be subjected to the same process as the original.

14.10.3. Unless otherwise stated in the contract PAKPAS has the right to make any change in the design which he prepared, in such a way not to affect customer requirements and reliability of the work, before approval by the customer and/or Inspection authority, if available. Otherwise, customer's approval must be received for changes.

15. DOCUMENT AND DATA CONTROL (4.5)

15.1. GENERAL (4.5.1.)

All of the below indicated documents and data that relate to the activities which affect quality, either in the form of any type of media such as writing and /or hard copy and/or written in computer language and saved in electronics media (i.e. diskettes or tapes) shall be protected, controlled and kept in custody according to the documented procedures and instructions.

15.1.1. Documents that relate to Company's Quality System and ISO 9001 requirements (Company manuals, procedures, and instructions)

15.1.2. National and International codes , standards, norms, statuary and regulatory requirements.

15.1.3. External documents from outside the company which likely affect the product, construction, installation etc.

15.1.4. Specifications, drawings procedures, instructions, data sheets, inspection plans etc. which are supplied by the customer.

15.1.5. Computer software and data.

15.1.6. Drawings, calculations, specifications etc. that relate to the works.

15.2. DOCUMENT AND DATA APPROVAL AND ISSUE (4.5.2)

15.2.1. The documents that relate to the quality system and ISO 9001 requirements shall be prepared by the authorized personnel and reviewed for adequacy by the authorized departments prior to issue. They come into effect upon approval by GMNR.

15.2.2. Documents that relate to the works shall be prepared by the related department personnel, reviewed for adequacy by the authorized units of the company and come to effect approval by the department manager and then distributed.

15.2.3. A master list identifying the current revision status and approval dates of documents shall be established and be readily available to preclude the use of invalid and obsolete documents. This list shall be available in all departments in possess of the document.

15.2.4. A list to indicate distribution of documentation and drawings is kept by the will of engineering services. The normal distribution is made from design department to the related departments.

1 copy for Quality Assurance Department
4 copies for related work site
1 copy for related Project Manager

and the copies this distributed are stamped by affixing stamps such as "production" "revision", information further copies are taken by relevant departments.

Documentation and drawings without validity are returned to the design department and are canceled there with the application of the stamp "Invalid". To documentation and drawings submitted to the clients a stamp "for information" is affixed and such documentation. Documents and drawings to show the last revisions are afforded to customer and/or to Inspection agency on request by themselves. The latest revisions are kept in the design department with the relevant master copies.

15.2.5. The approved original copies of manuals, procedures, instructions, and forms that relate to the Q.A. System and ISO 9001 requirements as well as the diskettes containing the files created in computer shall be controlled, maintained and kept in custody by QMNR.

15.2.6. The approved original copies of other documents shall be controlled, maintained and kept in custody by the department which issues the document.

15.2.7. Invalid and obsolete documents and their copies are promptly removed from all points of issue or use, or otherwise assured against unintended use by identifying suitably.

15.2.8. Any obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified.

15.3. DOCUMENTS AND DATA CHANGES (4.5.3.)

15.3.1. Revisions are only made in situations where these are required. Departments requesting revisions are obligated to show satisfactory proofs. Prerequisites necessary for safety and functional characteristics of products should not be much dismissed. Revisions may only be made following discussion of Project Manager with other departments.

15.3.2. Technical documentation and/or technical drawings take a revision index number for themselves. A list to comprise all revision effected is kept.

15.3.3. Furthermore, each and every technical drawing has on index number.

15.3.4. Where practicable, the nature of the revision shall be identified in the document or the appropriate attachments.

15.4. RECORDS

All records that relate to document and data control shall be retained, maintained and kept in custody as per Art.26. (4.16)

16. PURCHASING (4.6)

16.1. GENERAL

The documented procedures shall be used to ensure that purchased product conforms to specified requirements.

16.2. EVALUATION OF VENDORS, EXTERNAL WORKSHOPS AND SUBCONTRACTORS (4.6.2)

16.2.1. Vendors, external workshops and subcontractors shall be evaluated and selected based on documented procedure.

16.2.2. During evaluation, results of PAKPAS's audits of vendors, external workshops and subcontractors shall also be considered.

16.2.3. Purchasing Manager shall create and maintain records for the vendors, external workshops and subcontractors whose acceptances have been approved upon the evaluation procedure. The lists of approved vendors, external workshops and subcontractors shall be prepared, updated at certain intervals and distributed to the related departments.

16.2.4. Vendors, external workshops and subcontractors shall be evaluated and selected on the basis of their ability to meet subcontract requirements including the quality system, which were signed with them.

16.2.5. Selection shall be dependent upon the type of product, on the quality audit reports and quality records of the previously demonstrated capability and performance of subcontractors.

16.2.6. Purchasing Manager shall retain, maintain and kept in custody all the records as per Art.26.

16.3. PURCHASING DATA (4.6.3)

16.3.1. Purchase orders shall contain data clearly describing the product ordered, including the following where applicable;

16.3.1.1. The type, class grade or other precise identification.
16.3.1.2. The title or other suitable identification.
16.3.1.3 Applicable issues of specifications, standards, codes, norms, drawings, process requirements, test and other inspection procedures and instructions, and other relevant technical data.
16.3.1.4. Requirements that are the basis for product verification, sufficiency, qualification, documentation and approval.
16.3.1.5. Requirements that are the basis for qualification, documentation and approval of the procedures, process equipment and personnel.
16.3.1.6. Title, number and date of issue of quality system standard applicable to the product.

16.3.2. Purchasing documents shall be reviewed and approved for adequacy of the specified requirements prior to release by the related department and or personnel who make the request.

16.3.3. The already reviewed and approved purchasing documents shall be distributed in enclosure to the Purchase Order approved by GMNR.

16.4. VERIFICATION OF PURCHASED PRODUCT (4.6.4)

16.4.1. GENERAL

16.4.1.1. The product which is purchased for the work shall be verified by QAM according to the documented procedures and instructions, as per the conditions specified under the Purchase Order.

16.4.1.2. Verification shall be performed at the PAKPAS's site offices or PAKPAS ..... Storehouse and /or at the source.

16.4.2. COMPANY VERIFICATION AT SOURCE (4.6.4.1)

14.4.2.1. The company and/or his nominated IA has the right to verify the purchased product at its source during purchasing, either temporarily or finally, to ensure that the product conforms to the specified requirements.

16.4.2.2. Verification at source and approval for delivery shall not absolve vendor or external workshop or subcontractor from his liabilities.

16.4.2.3. Verification at source never implies final acceptance of the product.

16.4.2.4. Such products shall be subject to a subsequent verification at the PAKPAS's Premises, by applying inspections and tests described under Art. 20.2.

16.4.3. CUSTOMER VERIFICATION AT SOURCE (4.6.4.2)

16.4.3.1. Where specified in the contract, the customer and or his nominated IA shall be afforded the right to verify that the purchased product conforms to specified requirements.

16.4.3.2. Verification by the customer and/or his nominated IA shall not absolve the company and vendor or external workshop or subcontractor of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection of the product during later inspections.

17. VERIFICATION OF CUSTOMER SUPPLIED MATERIALS (4.7)

17.1. Customer supplied materials shall be received, controlled, stored and protected according to the documented procedures.

17.2. Verification operation covers visual and dimensional inspection, check of documents that relate to the materials and comparison of these document if they conform to the materials, etc.

17.3. Any such material that is lost, damaged and is otherwise unsuitable for use and other nonconformities shall be recorded and reported to the customer in writing. Customer's written comments are received in this regard.

17.4. Verification by the PAKPAS does not absolve the customer of the responsibility to provide acceptable material..

17.5. Records shall be retained, maintained and kept in custody under the conditions set forth Art 26 .

18. MATERIAL IDENTIFICATION AND TRACEBILITY (4.8)

18.1. Materials shall be identified, as from the receipt through all the stages of production, installation, if any and delivery to ensure its tracebility according to the documented procedures and/ or instructions.

18.2. Any completed product which relate to any work shall be identified with the information which appear on the company's standard name plate attached.

18.3. Records which relate to material identification and Tracebility shall be retained, maintained and kept under custody per Art. 26

19. MANUFACTURING, INSTALLATION, ERECTION CONTROL (4.9)

19.1. The company shall identify and plan the production and installation processes which directly affect the quality and shall ensure that these processes are carried out under controlled conditions according to the documented procedures and /or instructions.

19.2. Controlled conditions shall include following:

19.2.1. Procedures and instructions defining in detail the entire production and installation processes.

19.2.2. Use of suitable production, installation and servicing equipment, and a suitable working environment.

19.2.3. Performance of the processes by the qualified personnel.

19.2.4. Compliance with reference standards and norms, quality plans, quality control plans and/or documented procedures and or Instructions.

19.2.5. Monitoring and control of suitable process parameters and product characteristics which constitute production and installation stages and which affect product quality beyond customer requirements.

19.2.6. Selection and approval of processes and equipment by means of preliminary trials, research etc. for production and installation operations. Approval shall be given by the related manager and /or the customer if so required by the contract.

19.2.7. Criteria for workmanship, which shall be stipulated in the clearest manner (i.e. written standards, representative samples or illustrations etc.)

19.2.8. Suitable maintenance of fabrication and erection equipment to ensure continuing process capability.

19.3. where the results of the process can not be fully verified by subsequent inspection and testing of the product and/or where processing deficiencies may become apparent only after the product in use, the process shall be carried out by a qualified operators and/or shall require continuous monitoring and control of process parameters to ensure that the specified requirements are met. The process records shall be controlled and approved.

19.4. The requirements for any qualification of process operations, including associated equipment and personnel shall be specified.

19.5. Such processes requiring pre-qualification shall be carried out, monitored and controlled in compliance with special procedures and instructions (WPS, Postweld Heat Treatment Work Order etc.).

19.6. Records shall be retained, maintained and kept in custody as per art 26 for qualified processes, equipment and personnel.

20. INSPECTION AND TESTING (4.10)

20.1. GENERAL (4.10.1)

20.1.1. Inspections, checks, and tests shall be performed according to the requirements of company's procedures and instructions, Quality Control Plan, documented procedures, specific requirements and/or relevant codes, standards or norms.

20.1.2. QMNR is responsible to define, prepare, establish, implement, maintain and follow-up documented procedures and instructions for inspection and testing activities in order to verify that the specific requirements for the product and service are met, unless otherwise stated.

20.1.3. In case any nonconformity is found during inspection and testing activities, the Nonconformity Procedures of the company shall be applied to ensure reporting, follow-up and dispose the nonconformity.

20.1.4. Nonconforming materials shall not be used in production unless the NCR is resolved.

20.2. INSPECTION AND TESTS OF INCOMING MATERIALS (4.10.2.)

20.2.1. All the incoming semi-finished and finished materials supplied from vendors and external workshops to be used in production shall be subjected to the receiving inspections and test in order to verify their dimensions and qualities by QAM.

20.2.2. Inspections, checks, and tests shall be performed in accordance with the requirements of the documented procedures and/or instructions and related specification, Quality Control Plan, codes, standards and norms.

20.2.3. Except those to be used for urgent production purpose, no material shall be used and processed in production until QAM is assured of the material, inspection and tests of the incoming material have been completed and the material has been accepted.

20.2.4. QMNR may approve, under his own responsibility, to release the materials for urgent production purpose.

20.2.5. The materials to be used for urgent manufacturing purpose shall be clearly identified and recorded in order to permit immediate and easy recall, return and/or replacement in the event that it is found to be nonconforming to the specified requirements after they were released for manufacturing.

20.2.6. Company supplied materials shall be inspected and tested at company premises and/or at source which is identified under Art.14.4.2. depending on type and size of material and the nature of inspections and tests to be performed.

20.2.7. The materials which are verified at source shall be subject to a subsequent verification at company premises by applying additional inspections and tests as a base for acceptance.

20.3. INSPECTION AND TESTS DURING MANUFACTURING (4.10.3)

20.3.1. Compliance of the product to the specified requirements and its adequacy shall be determined by observation of manufacturing processes and through inspection and test methods which are performed as identified under Quality Control Plan and/or documented procedures and instructions.

20.3.2. Until inspection and tests of the manufacturing , to be performed by customer and/or IA, and which are labeled "Hold Point" are approved by customer and/or IA, the subsequent stage will not be proceeded. However, in case customer and/or IA, if any, are not present at the inspection and test, PAKPAS shall have the right to proceed to the subsequent stage as identified in Quality Plan and Quality Control Plan.

20.3.3. Materials and products which are supplied from stocks shall be subject to the inspections and testing by QAM before use, to ensure usability and verification.

20.3.4. Except where the materials which are released for urgent manufacturing, as mentioned under Art. 20.2.5. are returned and/or replaced, the subsequent stage shall not be proceeded before inspection and tests of the manufacturing, labeled "Hold Point" are completed, required verifications are performed and related reports are approved.

20.3.5. Return and/or replacement of the materials which are released for urgent manufacturing shall not prevent conduct of other inspection and test activities of manufacturing.

20.4. FINAL INSPECTIONS AND TESTS (4.10.4)

20.4.1. The company shall carry out all final inspection and test in accordance with Quality Control Plan and/or documented procedures and instructions to complete the evidence of conformity of the finished product to the specified requirements.

20.4.2. Prior commence of final inspection and testing activities, QAM, at first hand, and customer and/or IA, if any, shall review and verify that all specified inspection and tests which are required until this stage, including those specified either on receipt of product or in- manufacturing, have been carried out and that the results are acceptable, and that any report and records pertaining thereto have been approved by customer and/or IA if any.

20.4.3. Final inspections and tests shall cover any and all inspection and testing activities which should be carried out for the verification of acceptance of the work by the company, acceptance by the customer and conformity to the requirements which are identified by IA.

20.4.4. No product shall be dispatched until all the inspection and testing activities specified in the quality plan and/or documented procedures have been satisfactorily completed, reports and records are approved and accepted, the data file is approved and final inspections are made and accepted by QAM prior dispatch.

20.5. INSPECTION AND TESTS OF INSTALLATION (4.10.3)

20.5.1. All inspection and test procedures and instructions as well as the Quality Control Plan shall also be valid at PAKPAS's sites.

20.5.2. Inspection and tests of Incoming materials, manufacturing and final inspection of directly purchased products at sites shall be carried out as per Art.20.2, 20.3 and 20.4.

20.6. INSPECTION AND TEST RECORDS (4.10.5)

20.6.1. PAKPAS shall establish and maintain records which provide evidence that the product has been inspected and tested and that it meets specified requirements.

20.6.2. All reports and records , if so required by the contract, shall be signed and approved by the customer and/or IA, if any, who are responsible for inspection.

20.6.3. Inspection and test records shall be retained maintained and kept in custody as per Art 26.

21. CONTROL OF INSPECTION, MEASURING AND TEST EQUIPMENT (4.11)

21.1. GENERAL (4.11.1)

21.1.1. QAM shall control and maintain all the inspection, measuring and test equipments of the company and any equipment which company has borrowed and/or supplied by the customer to demonstrate the conformance of product to specified requirements.

21.1.2. Inspection, measuring and test equipment shall be subject to verification, calibration and maintenance according to documented procedures and instructions and/or codes or standard or norm or written instructions prepared by the manufacturer of the equipment.

21.1.3. Inspection, measuring and test equipment shall be used in a manner which ensures that the measurement sensitivity and uncertainty are known and are consistent with the required measurement capability.

21.1.4. Personal equipment, tools and devices shall not be used for this purpose of demonstration compliance of the product to specified requirements.

21.1.5. Verification controls, calibrations and maintenance of equipment shall be performed by company with its own capability and/or have same performed to national and/or international government and/or private organizations at international quality and having required authority.

21.1.6. In case inspections ,measuring and tests are performed by external organizations because of company's incapability, QAM shall control qualifications of the personnel who use the equipment, records pertaining to the employed inspection, measuring and test equipment, verification and calibration certificates to ensure that verifications, calibrations and maintenance are performed by the organization in question at certain interval and times.

21.1.7. External workshops and subcontractors shall be inspected and approved by QAM in terms of their, measuring and test equipment, records and documents pertaining to verification as well as the qualification of their personnel who use such equipment.

21.1.8. All documents and records that relate to verification s and calibrations of inspection, measuring devices and test equipment shall be retained, maintained and kept in custody by QAM as an evidence as per Art 26.

21.1.9. All technical information that relate to the verification of functional capability of inspection, measuring and test equipment will be made available for easy access by the customer and/or IA, if any.

21.2. CONTROL PROCEDURE OF INSPECTION, MEASURING AND TEST EQUIPMENT

All inspection, measuring and test equipment shall be kept under control according to the following methods.

21.2.1. Determine the measurements to be made and the accuracy required and selection of the appropriate inspection, measuring and test equipment that is capable of the necessary accuracy and precision.

21.2.2. Identify all inspection, measuring and test equipment that can affect product quality, and calibrate and adjust them at prescribed intervals, prior to use, compared with primary calibrated equipment having a known valid relationship to internationally and/or nationally recognize standards. Where no such standards exist, the basis used for adjusting, verification and calibration shall be documented.

21.2.3. Calibration of inspection, measuring and test equipment shall be indicated by approved labels which are hung or attached.

21.2.4. Define the process applied for the calibration of inspection, measuring and test equipment, including the details of equipment type (mark, serial no, manufacturer, date of manufacture etc.) unique identification, location frequency of checks, check method, acceptance criteria and the corrective actions to be taken when results are unsatisfactory.

21.2.5. Records and document of calibration, verification, adjustment and maintenance of equipment shall be retained, maintained and kept in custody as per Art.26.

21.2.6. In case any deficiency and nonconformity is found out later on inspection, measuring and test equipment, validity of the test result of previous inspections, measurings and tests, as well as acceptability of the product shall be reviewed and evaluated again. In this case, all checks and evaluations shall be written down and relevant records are kept.

21.2.7. Any inspection, measuring and test equipment of which calibration validity is expired and which is suspected of accuracy, shall not be used . If possible, they will be removed from the working area and indicated by a label attached.

21.2.8. PAKPAS's Nonconformity Procedure shall be applied for the equipment of which accuracy is not verified upon calibration. QMNR shall decide if the said equipment shall be repaired or scraped.

21.2.9. Calibration validity of equipment and its list shall be issued by QMNR considering the following.

21.2.9.1. Recognized international standards or codes or norms.

21.2.9.2. Recommendations of equipment manufacturer.

21.2.9.3. Frequency and conditions of use of the equipment.

21.2.9.4. Calibration results performed at certain intervals and calibration ability.

21.2.9.5. Conditions for environment, preservation, maintenance and repair.

21.2.10. QAM shall be responsible for and authorized to select suitable inspection, measuring and test equipment.

21.2.11. In order to ensure the adequacy of the equipments shall be handled, preserved and stored such that their accuracy and fitness for use are maintained, and shall be protected against any process which shall invalidate their calibration.

21.2.12. The inspection , measuring and test equipments shall be handled, preserved and stored such that their accuracy and fitness for use are maintained, and shall be protected against any process which shall invalidate their calibration.

22. INSPECTION AND TEST STATUS (4.12)

22.1. The status of the inspections and tests of incoming materials, manufacturing inspections and tests as well as final inspections and tests shall be determined by QAM by the following methods.

22.1.1. Use paint, label plate sign mark or similar signs.
22.1.2. Identification on reports and records and segregation from others if possible
22.1.3. Keeping Inspection and test reports and records.

23. CONTROL OF NONCONFORMITY (4.13)

23.1. GENERAL (4.13.1)

23.1.1. Nonconforming product, material and activity shall be controlled in accordance with documented procedure by QMNR in order to prevent them from unintended use.

23.1.2. This control is performed to ensure reporting, identification, evaluation of the non conformity, segregation the nonconfirming product from others (when practical), disposal and notice to other related departments.

23.1.3. QMNR shall determine the methods that are related to inspection and testing of the nonconforming material or work, and maintain documented procedures are complied with.

23.1.4. Managers shall determine the methods to ensure removal and preventation of nonconformities inside their departments , maintain documented procedures and control if such procedures are complied with.

23.1.5. Any material or product for which a nonconformity report is issued is segregated from others and labeled. It shall be never used in process until NCR is resolved.

23.1.6 Nonconformity and related reports shall be kept at all stages, from determining of the nonconformity until its resolution, under control and supervision of QMNR.

9

23.1.7. In case any non conformity or nonconforming part for which a NCR has been issued does not affect the subsequent stage of related activity or activities or manufacturing or does not lead to further nonconformities, continuation of the

manufacturing or activity shall never be used or any process shall never be performed on the nonconforming part and work.

23.2. REVIEW AND DISPOSITION OF NONCONFORMITY (4.13.2.)

23.2.1. The responsibilities and authorities for the review and disposition of nonconforming product are defined on the Nonconformity Procedure.

23.2.2. Nonconforming material, activity and product shall be evaluated and disposed according to documented procedures, such as;

23.2.2.1. Reworked to meet the specified requirements.
23.2.2.2. Accepted with or without repair by concession.
23.2.2.3. Additional inspections, tests and reviews shall be performed .
23.2.2.4. Regarded for alternative applications in the warehouse.
23.2.2.5. Rejected and scrapped or canceled.
23.2.2.6. Rejected and returned to vendor or customer.

23.2.3. Where required by the contract, if any repair of any material and product is necessary in order to meet the specified requirements, the approval of the customer and/or IA, if any, shall be taken.

23.2.4. The acceptance of any nonconforming product or its repair shall be recorded to denote the actual condition.

23.2.5. Repaired product shall be re-inspected and tested in accordance with the Quality Plan and Quality Control Plan and/or documented procedures. (Issued as required)

23.2.6. Any change resulting from required corrective actions to dispose the nonconformity might require another corrective and/or preventive action during and after implementation. Records shall be maintained during implementation of corrective actions (issued procedures, instructions, inspection and test reports etc.)

23.2.7. In case corrective actions to dispose nonconformities lead to deviations and changes on the work and documents that relate to company, and on the activities, materials and products, required corrective or preventive actions shall be performed in accordance with Corrective Action Procedure and Preventive Action Procedure.

23.2.8. All records and reports that relate to nonconformity shall be retained, maintained and kept in custody as per Art. 26.

24. CORRECTIVE AND PREVENTIVE ACTION (4.14)

24.1. GENERAL (4.14.1)

24.1.1. Repeating and risky nonconformities shall be classified considering the magnitude and character of the problem and corrective and/or preventive action shall be taken to eliminate the nonconformities in accordance with documented procedures.

24.1.2. Responsibilities and authorities that relate to evaluation of nonconformities and actions to be taken have been clearly identified in documented procedures.

24.1.3. Corrective and preventive actions as well as the reports that relate to such actions shall be kept under supervision and control of QMNR until satisfactorily completed.

24.1.4. After completion of corrective and preventive actions, it shall be controlled if the action has been correctly and effectively performed.

24.1.5. All records and reports that are kept in relation to the corrective and preventive actions shall be retained , maintained and kept in custody as per Art 26.

24.2. CORRECTIVE ACTION (4.14.2)

24.2.1. Corrective action shall be performed to prevent any repeating nonconformity at any operation, material and product.

24.2.2. In order to investigate and eliminate cause of nonconfirmities, analyses of work flow, quality data and customer complaints shall be reviewed.

24.2.3. Further to review and evaluation of all report, a decision shall be taken, i.e. either;

24.2.3.1. Continue without any corrective action, use as it is,

24.2.3.2. Decide to change and improve the conditions that cause nonconformity and make required corrections.

24.2.3.3. Decide to remove from application or invalidate without need to any corrective action or to release as scrap.

24.2.4. Changes resulting from a corrective action might be an additional corrective and/or preventive action during implementation. Therefore records shall be kept during implementation regarding the action.

24.2.5. In case a corrective action causes deviations on the specifications, procedures and instruction, a corrective action shall be implemented on the mentioned documents in accordance with related procedures.

24.3. PREVENTIVE ACTION (4.14.3)

24.3.1. Preventive action shall be taken in order to prevent in advance and/or minimize the risks involved with the nonconformities which likely create a certain risk and which probably occur at any operation, material and product.

24.3.2. In order to analyze, detect and eliminate the causes of potential nonconformities; documents, activities , materials, products, work flow, quality records, results of internal audits, manufacturing, inspection and tests which affect the product quality and customer requirements shall be reviewed.

24.3.3. During evaluation, preventive action recommendations, all activities, processes, quality records, documents that relate to the probable nonconformity and customer requirements shall be analyzed.

24.3.4. Changes resulting from preventive action might require corrective actions or additional preventive actions during implementation. Therefore, during preventive action, related records shall be kept.

24.3.5. In case preventive action causes deviations and changes on the specifications, procedures and instructions, corrective action shall be performed on such documents.

25. HANDLING, LOADING, UNLOADING, STORAGE, PACKAGING, PRESERVATION AND DELIVERY (4.15)

25.1. GENERAL (4.15.1)

25.1.1. The handling, loading, unloading storage, packaging, preservation and delivery activities of the materials and products shall be performed in accordance with documented procedures and instructions, in order to insure their conformity.

25.1.2. All records pertaining to handling, loading, discharge, storage, packaging, preservation and delivery of the materials and products shall be retained, maintained and kept in custody as per Art. 26.

25.2. HANDLING, LOADING AND UNLOADING (4.15.2)

PAKPAS shall take the necessary measures in order to prevent damage and deterioration during handling, loading and unloading of the materials and parts to be used for manufacturing of the work, as well as the equipments and parts of the work proceeding.

25.3. STORAGE (4.15.3)

25.3.1. The materials and parts to be used in manufacturing; pending use of processing and proceeding of the product and/or the product to be delivered; shall be stored where appropriate in secure and suitable fields and environmental conditions, to prevent damage and deterioration.

25.3.1.1. Sheet metal, sections, pipes etc. shall be normally stored at a suitable segregated open site. But, in this case the materials are beyond the normal lifting capacity of mobile cranes and/or nonferrous, a special area could be used inside the workshop.

25.3.1.2. Welding materials, flanges fittings etc. in suitable size which may be carried by hand, shall be kept and preserved at the covered warehouse.

25.3.1.3. Such inflammable items as paints, thinners, varnish etc. shall be received and preserved at special covered stock rooms or at similar places.

25.3.1.4. All other materials, beside those mentioned above and/or which can not be preserved inside warehouse due to their weights and /or sizes and/or sizes and/or those requiring crane shall be preserved in a separate area.

25.3.2. Documented procedures and instructions shall indicate and define entrance and exit rules to stocks as well as the authorities and responsibilities connected with such activities.

25.3.3. Preserved products shall be inspected at certain intervals to follow damage and deterioration.

25.4. PACKAGING (4.15.4)

25.4.1. Unless otherwise specified in the contract, the company shall perform and control packing, packaging and marking processes to the extend necessary to ensure conformance to specified requirements on the documented procedures and instructions.

25.4.2. If so required by the contract, contract requirements and/or customer's specifications and/or instructions shall be considered.

25.5. PRESERVATION (5.15.5)

25.5.1. The company shall preserve and control the completed product until accepted by the customer who shall perform inspections and tests to ensure that the product does not lose its properties.

25.5.2. During this period, product shall be kept at a separate area and preserved to prevent any damage and deterioration by suitable methods.

25.6. DELIVERY (4.15.6)

25.6.1. Deliveries and activities related to deliveries shall be performed in accordance with documented procedures and/or instructions.

25.6.2. The quality of the product which was finally inspected and tested and which is to be delivered by the customer shall be maintained by suitable methods until loading on vehicle of the customer.

25.6.3. Company shall be responsible for the preservation of the product, to be delivered at customer premises, until destination.

25.6.4. Customer shall be responsible from the preservation of the product during unloading by himself and at later stages.

25.6.5. No product shall be delivered until final inspections and tests referred under art 20.4. have been performed by QAM or customer and/or Authorized Inspectors, if any product is approved and accepted and final pre-delivery inspection performed by QAM.

26. CONTROL OF QUALITY RECORDS (4.16)

26.1. GENERAL

26.1.1. Quality records shall be maintained to demonstrate conformance of the quality to specified requirements and the effective operation of the quality system.

26.1.2. The identification, collection , indexing, access, filling, storage, maintenance and disposition of quality records shall be maintained in accordance with documented procedures and instructions.

26.1.3. Quality records that directly relate to vendors, external workshops and subcontractors shall also be controlled in similar manner.

26.1.4. All quality records shall be legible and clearly identifying the related product.

26.1.5. All quality records shall be stored and retained by related departments in such a way that they are readily retrievable and usable in facilities that provide a suitable environment to prevent damage or deterioration and to prevent lost.

26.1.6. Records shall be retained for a minimum period of 5 years as from the final acceptance by customer unless otherwise indicated.

26.1.7. Where agreed by a contract, quality records shall be filed, preserved, kept in custody and retained by the related department for evaluation by the customer and/or IA for an agreed period.

27. INTERNAL QUALITY AUDITS (4.17)

27.1. The quality audits and follow-up activities which are implemented to verify whether the quality activities and related results comply with plans, to determine effectiveness, shall be performed as planned in accordance with a system supported by documented procedures.

27.2. QMNR and internal auditors shall be responsible for implementing internal quality audits. QMNR shall be responsible for follow-up.

27.3. Internal quality audits shall be scheduled on the basis of the status and importance of the activity to be audited.

27.4. Internal audits shall be carried out by QMNR and/or by the personnel independent of those having direct responsibility for the activity being audited, twice a year at 6 months intervals.

27.5. The results of the audits shall be recorded and brought to the attention of the personnel having responsibility in the area audited.

27.6. The manager of the department responsible for the area shall take timely corrective action on deficiencies found during the audits.

27.7. The realization and effectiveness of the corrective action performed, shall be controlled ,verified and recorded during subsequent scheduled audit and/or non-scheduled follow-up audit and/or management review.

27.8. Records that are kept for internal audits and follow-up shall be retained, maintained and kept as indicated under Art .26

28. TRAINING (4.18)

28.1. Identification of training needs, implementation and training of all personnel performing activities affecting quality shall be ensured in accordance with the documented procedures on the bases of the job undertaken by the company and job descriptions.

28.2. The personnel performing specific assigned tasks shall be qualified by the additional training, education an/or experience as necessary.

28.3. The welders performing manufacturing and site weldings shall be trained, whether they are Company's or subcontractor's personnel, and shall have approved certificates of qualification in accordance with related standards, codes and norms.

28.4. Records of training and certificates of welder's and NDT personnel shall be retained, maintained and kept in custody as per Art 26.

29. SERVICING (4.19)

Company is not rendering any service.

30. STATISTICAL TECHNIQUES (4.20)

Related methods and techniques have been analyzed and since the Company is operating solely on special orders, rather than mass production, each process has different characteristics. Therefore it is decided that statistical techniques that relate to the product characteristics and process can not be applicable in the company in an efficient manner.

31. ENCLOSURES

Encl.1. Company Organization Chart
Encl.2. Site's Organization Chart