

۱- هدف:

هدف از تدوین این دستورالعمل، مشخص نمودن چگونگی فرآیند کنترل کیفیت قطعات و عملیات نصب تجهیزات می باشد.

۲- دامنه کاربرد:

دامنه کاربرد این دستورالعمل در تمامی قسمت های مرتبط و سایت های شرکت برق صنعت ایستا می باشد.

۳- تعاریف:

ندارد.

۴- روش اجرا:

فرآیند کنترل کیفیت در شرکت برق صنعت ایستا شامل موارد ذیل می باشد:

الف: کنترل کیفیت اقلام ورودی

ب: کنترل کیفیت عملیات نصب و اجرا

- بازرسی لوازم و تجهیزات مورد نیاز پروژه ها در بدو ورود بر اساس معیارهای مشخص شده در جدول معیارهای پذیرش اقلام ورودی انبار و در صورت لزوم از طریق نمونه برداری مطابق دستورالعمل نمونه برداری انجام می پذیرد. سوابق بازرسی و کنترل در فرم گزارش کنترل کیفیت اقلام ورودی توسط مسئول QC ثبت شده و نگهداری می گردد.

یادآوری: کنترل کیفیت اقلام ورودی در انبار دفتر تهران و تمامی انبارهای موقت سایت های شرکت انجام

می پذیرد.

• در این راستا پیش از اجرای عملیات نصب، اسناد نصب توسط دفتر فنی سایت بررسی شده و در مواردی که اسناد موجود/ کافی نباشد، دستورالعمل نصب تهیه/ ویرایش شده و چک لیست‌های کنترل نصب تهیه می‌گردد.

دستورالعمل نصب شامل موارد ذیل می‌باشد:

- اجرای عملیات
- معیارهای پذیرش
- آزمون/آزمایش‌های مورد نیاز
- نقاط بازرسی

یادآوری: چک لیست‌ها و دستورالعمل‌های نصب الزاماً می‌بایست به تأیید کارفرما برسد.

تبصره: در صورت درخواست کارفرما، از چک لیست‌های کارفرما استفاده می‌شود.

فرآیند کنترل کیفیت عملیات نصب تجهیزات توسط مسئول QC سایت انجام می‌پذیرد.

در صورت مشاهده نواقص/ عیوب در اجرای کار عملیات نصب، مسئول QC سرپرست اجرایی سایت را آگاه نموده و با هماهنگی ایشان موارد رفع می‌گردد.

مسئول QC ملزم به به کنترل مجدد تا مرحله پذیرفته شدن عملیات نصب می‌باشد، سوابق کنترل کیفیت می‌بایست ثبت و نگهداری گردد.

یادآوری: در صورت استفاده از اجازه ارفاقی از نماینده کارفرما/مشاور، سوابق اجازه استفاده یا پذیرش موارد نامنتبق می‌بایست در پرونده پروژه نگهداری گردد.

یادآوری: شرایط استفاده از اجازه ارفاقی در روش اجرایی "کنترل محصول نامنتبق" به طور کامل تشریح شده است.

۵- مسئولیت‌ها و اختیارات :

در متن دستورالعمل مشخص شده است.

کد شناسایی: PJ-WI-05-00

صفحه ۳ از ۳

تاریخ آخرین ویرایش: ۸۹/۰۹/۱۰

عنوان سند: دستورالعمل کنترل کیفیت



۶- مستندات مربوطه :

- روش اجرایی کنترل محصول نامنتطبق

- دستورالعمل نمونه برداری

- چک لیست های نظارت بر نصب

- فرم کنترل کیفیت اقلام ورودی



Quality Control / Quality Assurance

1. Introduction

The purpose of this document is to provide a general description of the Quality System, Which applies to the works and Services, supplied by ISTA Engineering & Construction Company.

The quality system also covers all phases of project activities including design, manufacturing, shipment, site work, assembly, and commissioning and final acceptance by the owner.

2. Quality Policy

The hallmark of ISTA shall be Quality.

- Commitments, works and services must be recognized as an expression of Quality.
- Our most important Quality criterion is the satisfaction of our clients. We must aim at maintaining full confidence in ISTA.
- Company as a General Contractor. Our undertakings must fulfill agreed terms and each completed project should represent a recommendation for further projects.
- Our reputation is based on our dedication, our ability to cooperate, our resources and, above all, our attitude to Quality.
- ISTA Quality System is to be implemented and supported by every employee.



3. Management Responsibility

The company management is actually aware of its responsibility for all activities related to quality, and gives full support to the company's quality policy through positive action.

QA/QC organization is shown in the attached organization chart of the company. QA/QC Management of projects is responsible for the formulation, introduction and maintenance of the quality System, supervision of its compliance and the authorization of personnel for Quality control and special process.

Furthermore, QA/QC Management is responsible for the introduction and implementation of general method, standards and system used during the design manufacturing & construction works.

QA/QC manager reports directly to the project manager.

QA/QC manager will have assistants for quality control.

Each assistant named as " QC supervisor " will control different work disciplines such as civil, steel structure, mechanical, electrical and instrumentation according to the requirements of project.

4. Quality System

The operations of project are controlled by instructions. The quality system is described in detail in the quality manual of company, which also refers to all relevant instructions.

The Quality manual of company provides guidance for all project activities and for various fields.

The Quality Control Department has produced company's quality manual, which is also responsible for it being maintained and updated.

The purpose of contractor quality system is to ensure the realization of contractor quality policy. It contains the administrative routines necessary for ensuring that all works/ services conform to agree terms.

That Quality System ensures that activities, which affect quality, are:

- Carried out in accordance with written instruction, procedures and drawings.
- Carried out by personnel with a high degree of competence in their fields.
- Documented in accordance with written instructions.
- The quality system covers site activities as well as in-house activities.
- The manager of the Quality Department is responsible for regular review and maintenance of the Quality system.

4-1- Quality Planning

ISTA will meet the requirements of quality by documenting the necessary quality plans through establishing standard operating procedures for service operation and inspection and testing activities taking in to consideration the following:

- a) Preparation of quality plans tailored to customer requirements.
- b) Identification and acquisition of controls, processes, equipment, resources and skills needed to meet the quality requirements.
- c) Ensuring the compatibility of the service /project process and inspection and test procedures.

- d) The updating, as necessary, of quality control, inspection and testing techniques, including the development of new instrumentation.
- e) The identification and improvement of any measurement requirement related to capability within sufficient time for the needed capability to be developed.
- f) The identification of suitable verification at appropriate stages in the realization of services.
- g) The clarification of standards of accessibility for all features and requirements, including those, which contain a subjective element.
- h) The identification and preparation of quality records.

5. Contract Review General

The preconditions for fulfilling client expectations and requirements are already defined at the tender and contract final stage.

Before a proposal is submitted persons examine it with sufficient competence to determine whether the requirements specified in the contract can be fulfilled, including availability of resources and ISTA & client.

5-1- Reviews

Assures that each agreement is reviewed for:

- a) Thorough documentation of requirements.
- b) Complete resolution of differences of understanding.
- c) Issues that may challenge the capability of ISTA to fulfill the intended contract.

5-2- Amendments to the Contract

Changes to contracts can only be made by co-agreement between the Projects Manager and the appropriate customer representative.

The company's representatives recognize that changes impacting other ISTA'S departments must be reviewed and approved by them. Contracts are amended accordingly.

- Documentation of Drawings & Specifications
- Computer Data Control
- Documentation of Project
- Quality Plan Documentation Master List

The control of data is addressed within the procedure for Quality Records. Other external references will be identified for information only and they will be updated.

6. Document Control General

Documents of many types are used in the systematic control of technical information.

In the instructions, the routines for formulation and handling of all quality control documents are established, as technical directions, product specifications, plans and similar documents as well as construction procedures and methods.

The purpose of documents control is to ensure that:

- The contents of the document meet the requirements of each activity concerned.
- The allocation of responsibility for formulation, review, approval and issuance of documents is established.

- Documents are available at the right place at the right time.
- All changes are examined and approved by the responsible party that approved the original design.

6-1- Documents Approval and Issue

The referenced procedure in 5.2.6 above provides for the review and approval for initial release and subsequent changes.

The master lists showing the latest revision for each separate document are addressed in Document control procedures.

Employees are required to verify that they are using the latest revision documentation unless directed not to by another approved document.

Document control procedures gives direction for distribution and removal of documentation including:

- a) Distribution to facilitate the effective functioning of the quality system.
- b) Prompt removal of obsolete versions.
- c) Clear identification of obsolete documents retained for any reason.
(e.g. Legal and financial documents)

Computer Data Control describes the method to control file computer data, through backup system, passwords, and virus detection and cleaning.

6-2- Document and Data Changes

All ISTA controlled documentation must be reviewed and accepted by the affected functions before changes can be implemented.

The change originator must be prepared to supply any reviewer with the necessary information to assure understanding.

Where applicable the nature of change should be identified. Description entries on control sheets must be.

Sufficient to characterize and locate the change within.

7. Purchasing General

The relevant instructions and routines ensure that, purchases are properly planned and carried out.

However, this permits that goods and services are purchased from suppliers, who supply the desired quality.

Company requirements regarding the quality systems of suppliers are determined after an evaluation and classification of products obtained externally.

When a new supplier is to be contracted, or if the client makes special demands, a supplier evaluation is carried out.

As a rule, financial, commercial and technical assessments are made in addition to the evaluation of the quality system. The results of these evaluations are recorded.

Purchases are normally preceded by an invitation to tender, in which potential suppliers are informed of all known requirements.

Tenders received are examined for any change, which may have been made in relation to contractor invitation to tender.

The purchase documentation contains the followings:

- The right to monitor quality and performance at the premises of the supplier.
- Procedures for the handing and approval of any non-conforming report.
- Requirements for storage, packaging, dispatch and means of transportation.

Should the purchase order be altered in any way, the same rules apply as when establishing the original purchase order.

The purchasing routines are also applied when sub-contractors are being engaged in projects.

7-1- Evaluation of Supplier

After a potential supplier is determined to be suitable, approval is based on the supplier survey.

Ista possess a documented system that clearly identifies its materials:

- Suppliers qualifications and grading methods based on the Supplier meeting the quality requirements, delivery dates and quantities.
- Periods of control over suppliers growing field or construction premises to ensure that they are working as per required quality needs.
- Property establishing and maintaining quality records of acceptable subcontractors.

The application of the above is tempered by impact of the purchased material or service on the quality of the service delivery.

7-2- Purchasing Data

In order to minimize the chance of the supplier misunderstanding purchase of the requirements, ISTA order and subcontractors services contracts require that the originator include, where applicable:

- a) Precise identification of mater / service ordered / required.
- b) Positively identified specifications, or other technical or legal documents required to establish full acceptability.
- c) Pertinent standards and codes including quality system standards by title, number, and issue.

Purchasing documents are reviewed and approved by authorized personnel prior to issue as per Purchasing Quality control Procedure.



7-3- Verrification of Purchased Product

ISTA states that a decision not to inspect incoming material or the failure to detect a supplier – generated nonconformity before receipt dose not relieve the supplier of responsibility for quality of the supplied goods.

7-4- ISTA Verification of supplier

ISTA may stipulate in any contract that purchased material is subject to source inspection.

When electing to do so, the details for such an inspection and subsequent release of accepted material will be stated in the purchase agreement.

7-4-1- Customer Verification of Supplied Product(s)

If agreed upon, customers may inspect supplied product at the supplier site or on ISTA permises.

This verification dose not absolve ISTA of responsibility to provide acceptable product not dose it precludes subsequent by the customer.

7-5- Control of Customer Supplied Product

Customer supplied product that affect the quality of the final service is verified by ISTA as per quality procedure inspection and testing procedure and stored as per quality procedure Hnding, Storage, Packaging, Preservation and delivery and as described in control of Customer Supplied Product.

Lost damaged, or non-conforming customer Supplied Product is subject to quality procedure.



7-6- Product/Service Identification and Tractability

In order to prevent the misuse or misapplication and to maintain identification of purchased material, work-in-process, or completed service, ISTA utilizes quality procedure, Product/Service Identification and Tractability.

Identification during delivery is accomplished through the use of identifiers. These identifiers are unique to each project.

Identification and Tractability is also maintained through the use of quality procedure, when required by the customer or when ISTA determines that the practice would be prudent for the service being delivered.

8. Manufacturing Process Control

8-1- General

Control of activities, which are part of the production and assembly process. Is carried out in accordance with a documented system.

The Manufacturing Specification is the most important document during the manufacturing process.

The specification contains details of the sequence of operations, production methods, material, special tools required in the same manner for field fabrications & construction activities.

If there are special requirements for cleanliness, ventilation, temperature, air humidity, etc, these are stated in instruction or Methods Provisions.

Special tools are tested for function at fixed intervals. If a tool is found to be defective whilst in use, the work is immediately interrupted and the tool is adjusted, repaired or replaced.

8-2- Special Manufacturing Processes

The term " Special Processes" refers to processes and methods that may not easily be checked upon completion.

Such processes include welding, soldering, inorganic and organic surface treatment, heat treatment, contact pressing, bonding and nondestructive testing.

The use of Special Processes in the production and testing of products is regulated by proven has the characteristics intended.

Authorized personnel who have undergone training and passed the required test carry out Special Processes such as welding and soldering.

Training and periods are also provided for Tasks, which do not require authorization. Occupational skills are regularly tested.

The results of practical and theoretical tests are recorded and filed throughout the period of authorization.

9. Inspections and Testing

9-1- Inspections and Test Plan

The Inspection and Test Plan is descriptive document, which summarizes the inspection, and tests, which precede the approval of contractor works/ services.

Additional plans may be issued for inspection and test activities during assembly and commissioning at site.

This plan is drawn up separately from the documentation to be used for inspection.

The requirements to be met, and the manner in which the results are to be recorded, are outlined in mandatory technical specifications, inspection cards, and test requests and similar.

The unit responsible for development and design normally determines test requirements and approval criteria.

Inspection and test plans may also be established for products purchased from outside suppliers and contractors.

However, if possible, bought in products are inspected in accordance with plans formulated by the supplier, which are based on relevant standards or manufacturing construction.

The Inspection and Test Plan may be used as a checklist ensuring that all tests have been carried out and also as a coordinating document for test report.

9-2- Receiving Inspection and Testing

Inspection and regulations are applied to ensure that incoming goods are inspected in accordance with documented procedures.

The inspection documents contain instructions on what to be inspected, how and to what extent the inspection shall be carried out and requirements for inspection records.

Requirements regarding marking and identification of goods are made clear to the supplier in the purchase order.

The receiving department is responsible for identification, recording of arrival date, and that the documentation supplied covers all areas specified in the purchase order.

The same rules are applied for deliveries directly to site.

Authorized inspectors have the right and duty to stop the use, further processing, assembly or dispatch of products and or works until satisfactory results have been obtained from the stipulated inspection and tests and until there is no doubt as to the interpretation of these results.

Non-conforming products and or works are segregated from the materials or work flow in order to prevent them from being used and or continued in error.

This is accomplished either by marking the products or placing them in special areas pending a decision as to the action to be taken and for unsatisfactory works the matter shall be raised up and reported to the relevant department.

The existence of goods or works marked "Approved with Remarks" or "Rejected" are reported to the supplier and or relevant department.

Products, which deviate from agreed specifications, are handled in accordance with the system function description for control of "Nonconforming product."

9-3- In Process Inspection and Testing

In order to ensure that works services conform to specified requirements, they are inspected during manufacture, assembly construction and erection.

The extent and execution of these inspections conform to inspection plans, instructions and specifications.

When special processes are implemented for which verification by testing is difficult, the processes and the equipment used are controlled and monitored.

Authorized inspection has the right and duty to stop the use, further processing, assembly or dispatch of manufacturing & construction works until satisfactory results have been obtained from the stipulated inspection and tests and until there is no doubt as to the interpretation of these results.

The use of documented procedures ensures that:

Inspection and results are recorded where it is required;

- Non-conforming works, parts and equipment are marked and segregated from approved products works;
- Process monitoring is carried out where it is difficult to verify quality properties in any other way.

9-4- Final Inspection and Testing

Every finished work-field undergoes a final inspection in order to ensure that Characteristics finish and performance comply with specified requirements.

As a rule, final inspection consists of visual and functional inspection in accordance with inspection cards, instructions and specifications. Commissioning is considered as the final inspection at site.

Authorized inspection have the right and duty to stop the use, further processing, assembly and erection of equipment or finishing other works until satisfactory results have been obtained from the stipulated inspection and tests and until there is no doubt as to the interpretation of these results.

The use of documented procedures ensures that:

- Inspection and test results are recorded if this is required;
- Rejected works / services are marked and segregated from approved works;
Inspection and test results are supplied to the client;

9-5- Inspection, Measuring and Test Equipment

Measuring devices, electrical instruments and test equipment are regularly calibrated so as to ensure that measuring and test results are sufficiently accurate.

The calibration system covers all equipment used for the inspection and testing of products as well as equipment used for the control and monitoring of important parameters within the manufacturing process in which faults may adversely affect Quality, Certain types of production aids are also covered by this system, as well as equipment used during erection and commissioning at site.

New measuring equipment and tools are given an identity number and are checked prior t use.

Equipment and tools, which are in use undergo periodic calibration against certified equipment having a known valid relationship to the project recognized standards.

If there are no such references, the calibration is carried out in accordance with established methods provisions and the results are documented.

The results of measuring equipment or tools inspections are recorded for a stipulated period of time.

Test equipment and tools, which have been approved at periodic tests, have a label or a color-coded sticker attached stating the date of the next calibration.

9-6- Inspections and Test Status

There is a system in use to indicate product inspection and test status with regard to stipulated inspection operations.

Inspection and test status is indicated by marking after each inspection, either directly on the product or the work.

Only products / works which have been inspected regarding specified requirements or with approved deviations will be permitted to go further to storage or considered as acceptable.

Further authorization to carry out such marking also carries the authority to update marking within the area concerned and when the inspection status of a product work changes.

10. Control of Non-Conforming Supplies and works

Instructions and rules exist for the handling of non-conforming supplies and or works. Non-conformity means that requirements set out in the documentation have not been fulfilled, or that works/services cannot be considered an example of good workmanship.

Permissions to repair a defect is granted by the Quality Department in consultation with the unit responsible for design and development and will be applied after client approval.

After such measures as re-working or repair, another inspection is carried out. In this context the documents containing specifications for purchased goods are to be treated in the same way as production documentation.

Suppliers and contractors who discover non-conformities are requested to inform contractor and propose corrective action.

11. Corrective Action

When defects are discovered, a system for implementation of corrective action is applied.

Any employee of ISTA who discovers a defect, is responsible for reporting it. Thereafter, the unit responsible for the works / services in question is informed in accordance with the system and subsequently takes corrective action.

If it is considered necessary, the causes of the defect are analyzed. Such an analysis is initiated by the relevant Design Department or the Quality control Department, which is assisted by specialists from other Departments if necessary.

The analysis of the causes for the defect and the corrective action subsequently taken are reported to the heads of the departments concerned.

Should the analysis show that the defect may recur, the relevant Design Department, Project Department or the Quality Control Department ensures that necessary preventive action is taken.



12. Handling, Storage, Packaging and Delivery

12-1-Handling and Storage

In the handling and storage of project material & equipment, including computer software, regulations and procedures are applied which ensure that the products are not damaged or suffered any other deterioration in quality, and the wastage or inappropriate or incorrect usage of the products is prevented or rendered more difficult.

Material & equipment kept in stores are checked periodically and when issued. These checks are intended to reveal qualitative shortages, visible deterioration on quality, or cases where the permitted storage time is exceeded. In computer programs access is restricted to the authorized personnel.

Lifting equipment, forklift trucks and other handling equipment and devices are designed to minimize the risk of damage to goods and injury to personnel.

Testing before commissioning, regular servicing, and periodic inspection take place at the required interval and in compliance with the requirements of the relevant official bodies.

12-2-Packaging of Imported Equipment

Regulation and routines are applied in order to meet the requirements of proper storage, packaging and delivery.

Packaging, marking, booking of transport and final dispatch are carried out in compliance with the relevant documentation which has been described in the foregoing sections.

Inspection in compliance with stipulated requirements is carried out regularly by the packaging foreman or supervisor.

In such instances, cleaning, special protective measures, packaging and are given special attention.

13. Quality Records

A system is applied to control the handling and filing of quality records. "Quality Records" mean written reports issued in connection with the implementation of the quality system as well as test reports, which demonstrate that the products supplied or achieved works, fulfill the stated quality requirement.

Quality records include results of inspection and tests, material certificates, worked services approvals and any reports of non-conformity, audit reports, procedure and method testing reports, and a list of authorized personnel.

Documents issued in connection with tests included the date of the test, the name of the tester, the result of the test and information how the stated requirements, the non-conformities are described and accompanied by a note on the action required to rectify them.

Quality records shall be filed in a suitable place, with appropriate protection against damage and loss. Documents are identified in such a way as enable them to be easily retrieved.

14. Internal Quality Audits

In order to determine whether the quality system is functioning efficiently, periodic quality audits of all functional units are carried out.

The frequency of these audits is stated in the activity plan, which is prepared annually by the Quality Department. Responsibility for the formulation and compliance with this plan rests with the Quality Manger.

These audits are carried out by the Quality Department assisted, if required, by specialists. The quality auditors do not have any direct responsibility for the units being audited.

In addition to the periodic system audits, product and process audits are also carried out in order to determine whether stipulated quality requirements are being met.

Upon completion of audits, reports are issued providing information pertaining to the units examined, observations and recommendations, together with corrective actions to be taken. These reports are submitted to the manager of the unit in question and to the Quality Manager.

If any discrepancies are discovered during the audit, corrective action should be taken.

When discrepancies have been rectified, another audit is carried out if deemed necessary, covering those areas which were the subject of the corrective action.

Auditing of important suppliers and contractors is carried out in conjunction with supplier assessment and when circumstances indicated the need.

15. Engineering & Design

The engineering work associated with the engineering department complies with all applicable requirements for design control and document control in the basic quality program of project.

In addition to subject related checking of design documents (civil, mechanical or electrical), a thorough cross-checking across subject borders takes place before the design "frozen".

Extensive use of CAD techniques is applied for detailed checking.

16. Project Management

Highly qualified personnel with a broad range of knowledge and experience are involved in the project management positions.

This is to ensure that works and services are done on schedule and comply with agreed specification and applicable standard.

Strictly documented routines have been implemented in all stages of the project work in order to ensure an efficient quality system. The staff capability has been developed through systematic training and feedback from projects completed.

Through use of computer tools, response times are shortened in all areas such as correspondence/ communications, time scheduling and follow-up invoicing control, shipment control etc. The organization is adapted to suit the various phases of the project.

17. Transportation to Work Site

Transportation to work site be done through suitable and capable forwarding agents.

In order to ensure a successful completion the contractor is assessed for commercial stability, technical capability and quality system effectiveness. There are special stipulations regarding the maximum age of transport equipment used (lorry, railway rolling stock, ship etc.) and the handling of the shipment during loading/un loading and transportation.

Sample checks are frequently carried out on normal goods. Heavy cargo shipments receive high priority supervision thereby ensuring that the correct equipment is used.

18. Civil Works at site

Certain rules and regulations are followed in order to identify requirements and to ensure that construction material and construction elements used comply with the data specified. The civil works will be supervised by well trained and experienced personnel using formal standardized documents systems and construction control methods.

According to organization chart, inspection organization will be established for site supervision.

Equipment and instruments are checked and calibrated in accordance with established rules. Results of checks and inspections carried out are uniformly documented.

Deviations from specified values are noted and corrected.

QC inspector and supervisors will control the quality of works and services at job site.

19. Erection at Work Site

Relevant rules and regulations are followed in order to satisfy all requirements to the erection activities at the work site.

Supervision of the fulfillment of the requirements is carried out by contractor's personnel, well trained and prepared for this purpose.

Tools and measuring devices used within the erection activities are calibrated against applicable standards in accordance with standardized routines .

All tools and measuring devices used at the work site are accompanied by documents proving that the procedure has been carried out.

Before a contract is placed with a subcontractor, he is assessed for technical commercial stability, capability and quality system effectiveness and will be introduced to the client to commence his work in case of client's approval.

20. Pre-Commissioning and Acceptance Test

Pre-commissioning, including erection tests and energizations, are carried out at site in order to verify the operational requirements of the plant.

This pre-commissioning is carried out by staff, thoroughly trained and well familiarized with the equipment delivered.

Pre-commissioning takes place in accordance with the Inspection and Test Plan mutually agreed between ISTA and client.

Measuring devices if needed and instruments used are calibrated against applicable standards in accordance with documented standard routines.

All measuring devices and instruments used at site are accompanied by documents confirming this procedure.

When pre-commissioning is over, after commissioning an acceptance test program is carried out in the presence of representative of the customer.

This program is normally the final item of the Inspection and Test are corrected or treated in accordance with a specified agreement.

After the Acceptance Test, relevant works/services are provisionally taken over by the client and the warranty period starts.

During the warranty period contractor is responsible for the works as per the contract.

At the end of the Warranty period the client finally accepts the plant/equipment delivered.