

**Sacredsun Power Sources Industry Co., Ltd**  
**Quality Manual**

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## 1.1 Quality policy

Continuously creating new product

Involving to improve continuously manufacturing process through AAMP (Advanced Automated Manufacturing Process) and CCDS (Computerized charging and discharging systems), in order to reduce defects

Effectiveness in administrating

Improving customer satisfaction

## 1.2 Quality objectives

1. Push to the quality education greatly, promote the whole staffs' quality consciousness and establish quality culture with "improving continuously to pursue zero defect".
2. Continuous innovation of the whole staff to obtain the market reorganization ability, technical development ability and providing ability by "one generation for production, one generation for storage, one generation for research".
3. Adopt the advanced management technology and management tool to improve QMS continuously to make the process quality level achieve 4.5 sigma and the product quality level for delivery achieve 4 sigma.

## 1.3 About us

ShanDong Sacred Sun Power Sources Industry Co. Ltd is one of the earliest professional enterprises in China which integrate the research, development, manufacture and selling of Valve-Regulated Lead-acid (VRLA) batteries. After more than 18 years' development and several times of large scale technical transformations, through cooperative research on some key topics and joint development with some professional organizations and universities at home and abroad, the general strength position of ShanDong Sacred Sun Power Sources had been proudly standing in the first rank of the VRLA battery industry, its technical capability and products quality is really at the top level in China.

All the key manufacturing equipments and quality control facilities running in Shandong Sacred Sun Power Sources are the up-dated professional ones from all over the world. Its annual manufacturing capability is about 900,000KVAH at the moment. Its products include 4 categories, 11 series with more than 200 different types, covering small size and medium-size blocks and large cells. These products are suitable for different applications, such as pure standby float operation power sources, high power/short time UPS, standby power sources with frequent cycling and pure cycling applications.

The performance of the products can meet the requirements of many world standards, such as the IEC 60896-21/22, BS 6290, JIS 8704-2 etc. The safety characteristics of the products have been granted the most important certificates, such as UL Certificates in USA and CE Certificates in Europe; its quality management system and environmental protection system had been certified by special organizations to the requirement of ISO-9001(2000) and ISO 14001.

Shandong Sacred Sun Power Sources occupies a stable share in domestic market thanks to its continuous development and excellent service. Its stationary VRLA had been granted all the important network-access licenses, such as all the Chinese telecommunication networks, electric power stations, national defends telecommunication network, and also gained very good reputation in the domestic market. Its products have been successfully running in some world-famous projects, such as Xi-chang Satellite Launching Base, Three-gorge project.

At the moment, 70% of its small and medium size VRLA blocks are exported, either with its own brand or with the brand(s) of big international battery companies of Europe in OEM way, to Europe, North America, Australia, Asia and Middle East etc.

## 2.0 Normative references

The clauses in the following normative documents are cited in this manual. At the time of publication, the editions are valid. The company shall discuss the possibility to apply the latest edition of the following standards if the normative documents are revised.

ISO 9000:2000 Quality management systems -- Fundamentals and vocabulary

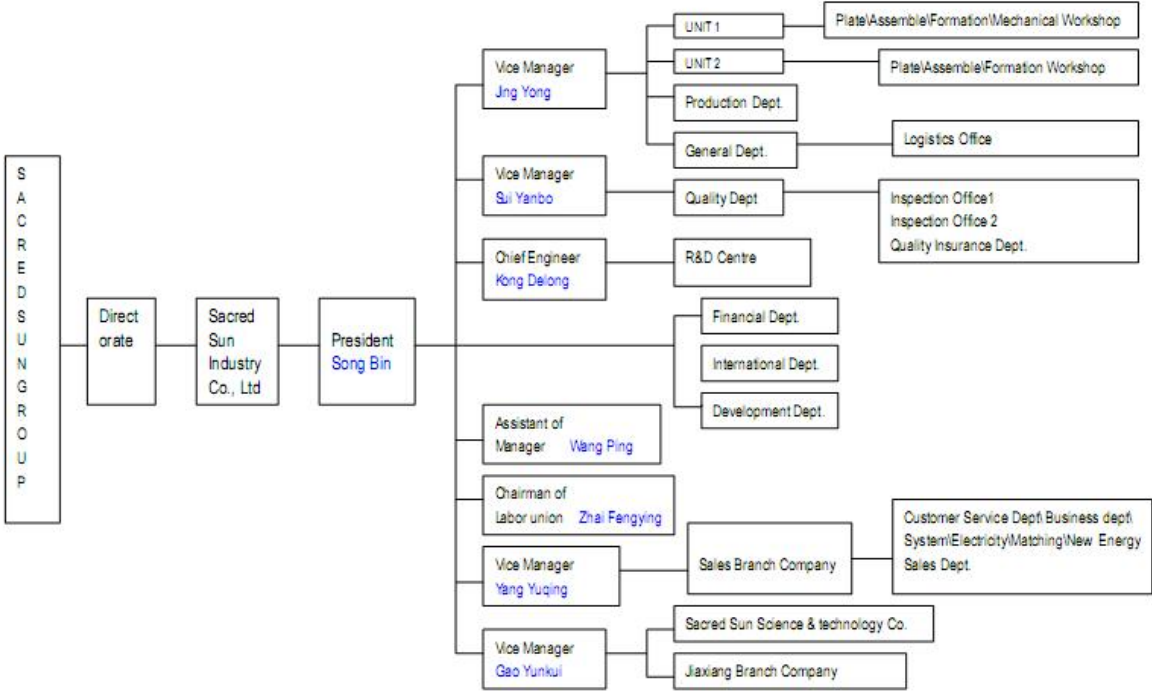
ISO 9001:2000 Quality management systems -- Requirements

ISO 9004:2000 Quality management systems -- Guidelines for performance improvements

This manual uses the terms and definitions in ISO 9001:2000, but replace “Organizations” with “Company”, that is in this manual “Company” referring to “Shandong Sacred Sun power sources Co., Ltd”.

### 3.0 Responsibility and authority

#### 3.1 QMS Organization Chart



## 3.2 Personnel responsibility and authority

### 3.2.1 General Manager

Responsible for the overall operation of the company, and directly lead company management members, finance minister and international business minister.

1. Implement national guidelines, policies, laws and regulations related to quality;
2. Organize to establish and achieve quality guidelines and quality objectives;
3. Perfect internal communication mechanisms and ensure full attention to its customers' requirements;
4. Appoint manager representatives and give them corresponding responsibilities, authority and resources;
5. Set up organizations complying with quality management system, definite responsibility, authority and relationships and allocate them with corresponding resources;
6. Organize management assessment regularly;
7. Approve A, B level documents of quality management system;
8. Lead international marketing, customer demands' management and customer services and ensure company's performance, and enhance customers' satisfaction continually;
9. Guide the market research, perceive customers' demands timely and accurately and ensure the effective transmission of customers' demands and promote development of new products.

### 3.2.2 Vice Manager of Marketing

Responsible for the domestic market marketing except power battery market, direct ministers of system marketing department, electrical power sales department, and ancillary sales department, services department and operational department;

1. Lead the domestic market marketing, customer demands assessment and customer services to ensure company's performance and enhance customers' satisfaction continually;
2. Guide the market research, perceive customers' demands timely and accurately to ensure the effective transmission of customers' demands and promote development of new products
3. Lead customers' satisfaction measurement, understand the customer experience fully and accurately to promote customers' satisfaction continually;
4. Lead delivery management and integrate market demands reasonably to guarantee delivery and performance.

### 3.2.3 Chief Engineer

Responsible for the technical work and directly lead the director of development and research center.

1. Lead customer demands investigation and identify customer requirements accurately.
2. Lead new products development, design and reconstruct and upgrade the old products to ensure the advancement of product technology.
3. Lead technique improvement and design, technical standards and norms establishment to ensure processes available and efficient.
4. Organize the implementation of technical projects such as new technologies, new processes, new materials and new equipment to promote technical progress;
5. Organize technical research to solve the major technical issues and key technologies like development, production, market applications to improve products quality;
6. Charge of internal technology appraisal;

7. Participate in important and special assessment of contracts if necessary.

### **3.2.4 Vice Manager of Quality**

Responsible for quality work and quality system establishment and directly lead vice minister of quality department:

1. Lead examination, analysis, testing for purchasing, process and products to ensure product quality stably and reliably;
2. Lead metering management and ensure appropriate collocation and values accurate;
3. Organize the quality assurance system for international market to provide customers with appropriate credibility;
4. Organize identification of quality improvement opportunities and implement improvement activities timely to improve the quality management system continuously;
5. Lead quality education and training for staffs and promote quality self-management and traceability to ensure the effectiveness of quality culture construction in company;
6. Participate in important and special assessment of contracts if necessary;
7. Organize the proposal of after-sale solution for international markets.

### **3.2.5 Vice Manager of Production**

Responsible for the production and environment system construction, assist the General Manager to do the works of the international market and directly lead the managers of manufacturing department, big and medium-sized battery branch and small battery branch.

1. Lead production and manufacture; integrate resources reasonably to ensure cost reduction;
2. Organize material purchase and build a stable supply chain to strength the competitiveness of company;
3. Organize management, maintenance and rebuilding of equipment, power, engineering to ensure normal operation;
4. Lead quality self-control in production process and improve the quality assurance process continually;
5. Organize production planning and rational production to ensure delivery timely;
6. Lead the construction of 5S, push forward the 5S management constantly with effective planning to achieve a safe and civilized production;
7. Participate in important and special assessment of contracts if necessary.

### **3.2.6 Manager Representative**

Accept the appointment from General Manager and completely perform the following responsibilities:

1. Responsible for the construction, operation and management of ISO 9001 quality management system and the effective operation of the quality management system;
2. Integrate resources after the authority granted by General Manager to ensure establishment, implement and maintain of the process that quality management system need;
3. Master and report the performance of quality management system and information from customers (including customer complaints), and put forward improving information and demands to make the General Manager fully understand the present situation of system operation and then improve it in time;
4. Promote the quality education of "Customer focus" to improve the quality awareness of the company and understanding of customers' requirements;

5. Represent the company to contact with external parties on matters related to quality management systems;

### 3.3 Department and authority

#### 3.3.1 General responsibility

1. Compose quality functions' documents that the department required, ensure its effective implementation and responsible for the filing and management of the departmental quality records;
2. According to position requirements, **collocate proper staffs as the procedure requirements and train their ability and instruct their** awareness to ensure they can be competent for their position;
3. Maintain, preserve and proper use the equipment, apparatus suits and instruments, etc.;
4. Use data analysis methods to identify unqualified reasons and then put forward corrective or preventive measures timely to promote quality improvement;
5. Develop interdepartmental communication and cooperation to exert efficiency of the organization.

#### 3.3.2 Responsibility and Authority of Department and Personnel

See *Department Functions and Position Duties* to find specific responsibilities and authorities of department and personnel.

※Associated Documentation

*Department Functions and Position Duties*

*Resolution of the company construction and personnel appointed*

## 4.1 General requirements

The company establish, implement and maintain a quality management system in accordance with the requirements of ISO9001:2000 International standard. To improve its effectiveness and promote the company performance, the following requirements are proposed:

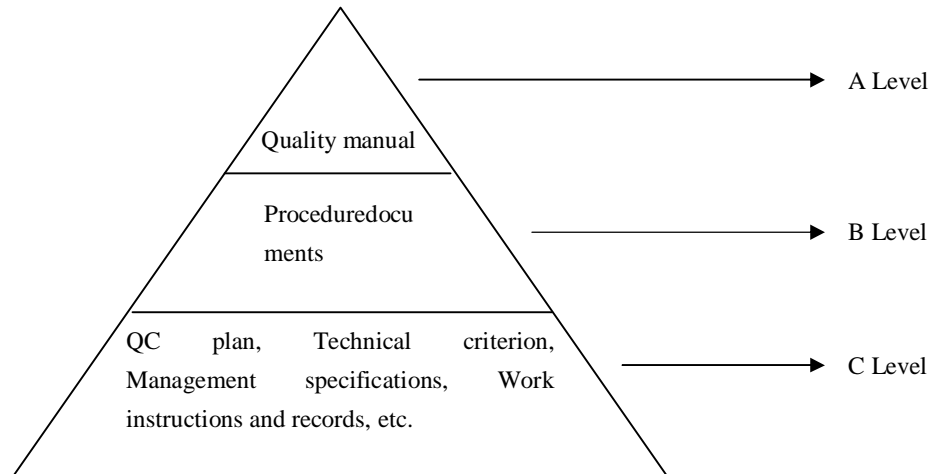
1. Adopt all clauses in ISO9001:2000 international standard.
2. Use process methods, system management methods and PDCA management, based on the flow of products realization, to identify and confirm systematically all processes related to quality, and clear the sequence and relationship of each process. 5W1H (What/When/Where/Why/Who/How) structure shall be displayed during process description to ensure its relative independence and systematic.
3. Confirm criterias and methods that process control required, and clearly define the input and output during process, activities and resources to control the process and then reach the predicted objectives or outcomes.
4. implement process monitor, measure and analysis to know the trend of the process running and the level of results based on the management review, system audits and data analysis, etc. According to analytical results, take necessary methods to ensure the realization of the planned outcomes and continuous improvement of process.
5. Identify the contract-out process that can influence the product and confirm necessary measures to implement the control, including measurement control, delivery transportation, precative processing and inspection, etc.

The above requirements are apply to the processes that related to the company quality management system and the operation of these processes should meet the requirements of the eight principles of quality management.

## 4.2 Documentation requirements

### 4.2.1 General

The company shall establish document management system to meet the requirements of quality management system. The documentation structure of quality management system is as follows:



Notes:

1. A-level documents: quality manual, including quality policy and quality objectives.
2. B-level documents: procedures documents, including 6 procedures documents which required by ISO9001:2000 and also other 15 procedures in accordance with the needs of the company. procedures are used to describe principles and methods in the quality activities, so their flow shall be cleared and their content shall be composed according to 5W1H structure.
3. C-level documents: technical criterion are the technical guidelines and regulations made in the product development; Work instructions refer to supply guidance and information to the operation of some activity; and records are 21 records that required by ISO9001-2000, and also include other records that needed in the operation of quality management system.

### 4.2.2 Quality manual

It contains:

1. Quality police and quality objectives;
2. Quality Manual application: the quality activities in the whole process of design, manufacture and service for VRLA battery which meet all the requirements of ISO9001:2000 standards without deletion;
3. Description of Organizations , responsibility and authority respectively;
4. Description of interaction among the processes of Quality Management System;
5. Procedures of documents established for the quality management system or their citation;
6. Control methods of quality manual.

### 4.2.3 Documentation Control

The company shall have appropriate documents to establish, implement and maintain quality management systems and support the effective and efficient operation of the company, including records. under the proper time and site, the company can get the existing effective and correct information and maintain the validity of documents.

All documents for quality management system shall be clear and cleanwith date (including revised date) to recognize and searcheasily.The company shall provide appropriate facilities to store the

**documents to minimum damages and prevent loss.** Documents can be any form of media, such as paper, computer discs, CD-ROMs, photographs, standard samples or other electronic media or their combinations, etc.

The company shall establish and implement *Document Control Procedures* to manage external documents and whole process activities including compiling, evaluating, approving, distributing, archiving, using, modification, identification, recovering and abolishing, to ensure:

1. compilation of appropriate documentation based on the business requirements;
2. get approval prior to issue; review and update and re-approve documents if necessary;
3. Mark the changes and current revision status of documents;
4. get available versions of relevant documents at site;
5. withdraw and destroy the abolished documents timely to prevent unintended use;
6. mark properly on the preserved abolished documents for law prescription and knowledge accumulation;
7. recognize external documents and control their distribution;
8. protect documents effectively to make sure letters clear and easy recognized and search and prevent damages and loss.

The following examples shall be controlled, but are not limited to these forms: quality manuals, procedures document, quality plan, external documents, **product drawing**, norms, technical standards, operation specifications, work instructions, test procedures, documents from supplier, test reports and records, etc.,

#### **4.2.4 Records control**

Record is a kind of special document. To confirm products, systems and services meet the requirements and validate the effective operation of quality management system, the company shall establish and maintain corresponding records. Analytical ability to records can provide important input for corrective measures and system improvement applied during the operation of quality management system shall be clear and easy identified and searched. Based on the needs of information collection and analysis, the company shall consider the overall needs to unify the record forms if the records have the value to be preserved. Record sheets shall be controlled as documents.

Companies establish and maintain *Records Control Procedures* to manage the mark, storage, protection, search, storage life and disposal, and specify the methods for the customer or supplier to obtain and consult the records.

To check the trends of management results, judge take improvement measures or not and analyze the effectiveness of improvement measures, records shall be preserved to be easily consulted in the specified period. In the meantime, in order to prevent the records to damage, lose and , the company shall keep these records under proper environment and in appropriate facilities.

The following examples shall be controlled, but are not limited to these forms: assessment reports, audit reports, training records, inspection reports, test data, appraisal reports, investigation reports, calibration records, feedback records, accident reports and supplier questionnaire.

※ Associated Documentation

*Document Control Procedures*

*Records Control Procedures*

## 5.1 Management commitment

General Manager who represent the company shall commit to establish and implement quality management system and continue to improve its effectiveness and benefit relative parties when focus on customer satisfaction, so the following activities shall be carried out:

1. Abide the principal of “honest and trust”, legally manage, focus on customer to create a sustained, efficient quality cultural atmosphere;
2. Organize to establish quality policy and quality objectives that comply with the company managing purpose to direct quality management activities and decompose objectives to carry out;
3. Ensure resources that required by the effective operation of quality management system can be obtained, confirm organizationstructure, identify realization process of value-added products and consider performance improving methods;
4. Allocate proper resources including human resources to ensure the effective operation and continous improvement of system;
5. Implement management assessment and prescribe the performance measurementwhich may include financial measurement, process measurement, satisfaction evaluation of customer and related parties to verify if quality objectives are achieved;
6. Take the erformance information of company as input of management assessment to improve performance of company by continuous improvement;
7. Plan the company development and management changes , establish and commmunicate principles which can satisfy the relative parties , including:
  - establishing mutually beneficial relations with supplier;
  - encouraging efforts of employees;
  - concerning public reaction;
  - increasing the economic benefit.

## 5.2 Customer focus

The company will depend on the customers to survive and develop, so the company shall meet customers demand, improve customer satisfaction and strive to exceed customer expectations.

For the purpose of meeting customers needs and expectations, the company shall:

1. Understanding the needs and expectations from customers, including the potential needs and expectations;
2. Confirming the key features of products to customer;
3. Identify and assess the company's market competitiveness;
4. Recognize market opportunities, quality disadvantages and future competitive advantages.

The company shall confirm and communicate customers requirement inside the company and make these requirements translate into products, process features or normative processes and then meet the customers requirements through quality management system operation. Customers needs and expectations may include:

1. compliance;
2. credibility;
3. availability;
4. delivery capacity;
5. activities after products realization ;
6. price and life cycle costs;
7. products safety;
8. product liability;
9. environment influence, etc..

## 5.3 Quality policy

General Manager shall organize to establish quality policy which shall coordinate with general business guidelines and strategic of company, and ensure the policy meet the following requirements:

1. be compatible with the purposes of the company;
2. commit to meet the relative requirements and improve the effectiveness of the quality management system;
3. provide the framework to establish and evaluate the quality objectives;
4. obtaine communication, understanding and implementation in the whole company;
5. evaluate the sustained suitability.

### 5.3.1 Factors for quality policy

In the establishment of quality policy, General Manager shall consider the following factors comprehensivly :

1. expected or desired of customer satisfaction;
2. type and extent of improvements needed in the future to make company successfully ;
3. human resources development ;
4. needs and expectations of related parties;
5. resources required;
6. potential contribution of suppliers and partners.

### 5.3.2 Result for quality policy

Through effective communication, the established policy shall:

1. Keep consistent with the future envision and strategies of the company;
2. express and communicate with an efficient way;
3. enable the whole companies to understand and implement;
4. promote quality commitment for each level.

### 5.3.3 Review the quality policy

Quality policy shall be reviewed periodically if necessary whose document management implements *Document Control Procedure*.

※ Associated Documentation

*Document Control Procedure*

## 5.4 Planning

### 5.4.1 Quality objectives

Quality objectives shall be confirmed by the strategic planning and quality policy of company. The company establish and implement *Quality Objectives Control Procedure* to manage the quality objectives.

Quality objectives will include contents that products required and it shall be specific, measurable and can be measured within the given time and also . When the company will establish its objectives, it shall consider:

1. Current market and future demands;
2. Relative results of management assessment;
3. Existing performances of products and processes;
4. satisfaction of relative parties, customer especially;
5. Self-assessment results;
6. Level contrast, competitor analysis and identified improving opportunities;
7. Required resources to achieve objectives.

Management representative shall orgnize establish company's three-years quality objectives of the which shall be executed after the approval of General Manager. The company shall make annual quality objectives according to the three-years quality objectives and annual management review requirements.

Management representative shall separate the annual quality objectives to the corresponding functions and levels under the authorization of General ManagerManager a, and then to communicate and implement, and manage it in the company objectives management systems so as to review systematically and revise when necessary.

### 5.4.2 Quality management system planning

Quality management systems planning will specify required processes for quality objectives quality requirements realization. General Manager shall ensure to completely plan the quality management system to achieve the establishe quality objectives and 4.1 clause.

The input of quality management system planning shall include:

1. company's strategic;
2. confirmed objectives;
3. confirmed needs and expectations of customers and other relative parties;
4. required evaluation from laws and regulations;
5. evaluation of product performance data;
6. past experience and lessons;
7. obviously improvement opportunities;
8. related risk assessment and data, etc.

The output of Quality management system can be used to confirm the required processes for product realization and suppor through the following aspects:

1. skills and knowledge which companies required;
2. responsibility and authority for the implementation of process improvement plans;
3. required resources, such as funding and infrastructure;
4. indicators to evaluate performance improvement results of the company;
5. requirements for improvement, including methods and tools;
6. demands for documentation requirements, including records.

Management representative shall organize to review the output of quality management system planning systematically to ensure the effectiveness and efficiency of the process. Results of quality management system planning shall contain quality manuals, procedure documents, quality objectives and realization results of process,etc.

These plans shall be revised periodically (every year one time generally) to reflect changes of the company maximumly. After the document changes, the corresponding departments and personnel shall implement and carry out carefully and maintain the continuity of system operation before and after change.

※ Associated Documentation

*Three-years Quality Objectives*

*Departmental Annual Work Plans*

## 5.5 Responsibility, authority and communication

### 5.5.1 Responsibility and authority

To implement and maintain an effective and efficient quality management system, General Manager shall organize to determine the responsibilities and authority of the company. All the departments and personnel who relate to quality should be given the necessary responsibility and authority and define interfaces.

Chart 3.0 in this manual and *Department Functions and Position Duties* shall specify the responsibilities and authorities of departments and personnel that relate to quality activities and establish a corresponding communication channels to create an of full participation and continuous improvement.

The Company shall give certain authority to employees, so that they can propose and solve problems independently which include:

1. Determine and record the issues related to products, processes and management systems;
2. Take measures to prevent occurring and recurring of unqualified items in products, processes or management system;
3. Control the unqualified products until the defects being corrective;
4. Propose and commend suggestion, ideas or measures through the defined channels and track and verify implementation and effectiveness of improvement measures.

### 5.5.2 Management representative

General Manager shall appoint a management representative and give him corresponding responsibility and authority to enable him to manage, monitor, evaluate and coordinate the quality management system to make the quality management system operate and improve effectively. The responsibility and authority of management representative can see 3.2.7 clause in 3.0 Chart.

### 5.5.3 Internal communication

General Manager shall promote effective communication and create conditions to establish appropriate communication processes in the company. These conditions include communication methods, time, contents and objects. So the suitable internal communication can be developed according to the quality principles, quality objectives, related requirements and completion, etc.

The company can encourage all staffs to feedback and communicate and take it as a method to push all staffs fully participating into quality management. The communication methods may include:

1. Sector regular meetings and special quality meetings, etc.
2. Written feedbacks and communication, etc.
3. Bulletin boards, management boards and company periodicals *Sacred Sun Tian Di*, etc.;
4. **Audio-visual** and electronic media, such as information on the company LAN and E-mails, etc.

※ Associated Documentation

*Department Functions and Position Duties*

## 5.6 Management review

### 5.6.1 General

General Manager shall organize to review the quality management system, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. This review shall include assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives. Records from management reviews shall be maintained.

Management review shall determine if the company's policy and objectives are being achieved, if improving measures are needed and provide resources.

All the department heads who involve in the work that will affect product quality shall taken part in the management review and personnel from other levels and departments can also be invited.

Management review usually shall be taken in the form of conference and other forms determined by General Manager.

The Company shall establish and implement *Management Review Control Procedure* to control the management review.

### 5.6.2 Review input

The input to management review shall include information on

1. Results of audits;
2. Customer feedback;
3. Process performance and product conformity;
4. Status of preventive and corrective actions,
5. Follow-up actions from previous management reviews,
6. Changes that could affect the quality management system, and;
7. Recommendations for improvement.

### 5.6.3 Review output

The output from the management review shall include any decisions and actions related to

1. Improvement of the effectiveness of the quality management system and its processes,
2. Improvement of product related to customer requirements, and
3. Resource needs.

※ Associated Documentation

*Management review control procedure*

## 6.1 Provision of resources

The company management shall determine and provide human resources, infrastructure and working environment required by the completion of the company's quality policy and objectives. The resources also shall include information, suppliers and partners, natural resources and financial resources, etc. The company shall pay attention to the resource using timeliness and cost effectiveness, and consider the following aspects:

1. Provide resources effectively and timely In terms of opportunities and constraints;
2. tangible resources, such as facilities to realize and support products r;
3. Intangible resources, such as intellectual property;
4. Required resources and methods to encourage staffs to do innovative and continuous improvement;
5. Organization structure;
6. Information management and technology;
7. Enhance staff s capability through training, education and experience summarization;
8. natural resources using of and its impacts on the environment;
9. resources required by the future.

## 6.2 Human resources

### 6.2.1 General

Personnel performing work affecting product quality shall be competent on the basis of appropriate education, training, skills and experience.

### 6.2.2 Competence, awareness and training

The company shall define personnel qualification standards and capacity required by achievement of company development plan and completion of the quality objectives, and the company shall consider this during personnel selection, recruitment, train, skills development and continuing education.

Management representative shall organize to carry out quality policy and quality objectives to make all employees understand the importance of achieving their objectives and enhance staff motivation to improve performance and encourage them to put forward recommendations or opinions for performance improvement.

Employees shall have appropriate knowledge and necessary methods and skills to complete their work. Through training, Employees shall know what are effective and correct methods to work and what are the consequences of wrong operation, and then employees shall master knowledge about the laws, regulations, internal standards, quality policy and objectives, work procedures and others

The company shall determine the necessary competence for personnel performing work affecting product quality and assesses if the staffs have such competence when they finish these activities and then evaluate and take appropriate measures like reasonable allocation or training. Human resource department shall organize to implement the above activities and evaluate the results to ensure staffs' capacity can meet the requirements.

The company shall establish and implement *Human Resources Control Procedure* to manage the staff allocation, ability, awareness, training and performance to ensure personnel performing work affecting product quality can be competent. And operators in special / critical process shall have corresponding capacity and shall be trained and examined before appointment.

The company shall perfect personnel files continuously and keep records of staff education, training, accreditation and experience, such as education, training, job title and work experience, etc.

The company shall describe the staff competence in the position duties of *Department Functions and Position Duties*, and assess the document based on the following information:

1. Needs of company development planning;
2. Personnel competence identification for specific activities;
3. Qualification accreditation for specific activities;
4. Laws, regulations, standards and guidelines that can influence the company and its activities and resources

※ Associated Documentation

*Human Resources Control Procedure*

*Department Functions and Position Duties*

### 6.3 Infrastructure

1. Based on the objectives, functions, performances, availability, cost, safety, confidentiality and update , the company shall define and provide the required infrastructure for products realization through the implementation of technology improvement plan or annual budget when considering the relevant needs and expectations. It shall include: Buildings, workplace and associated utilities;
2. Suits and equipments required by the system ;
3. Supporting services, including information, communication, transport, power supply facilities and energy sources such as water, electricity, gas and steam, etc..

According to the characteristics, importance and purposes of infrastructure, the company shall establish and carry out the maintenance plan to ensure the infrastructure be proper used and maintained to meet sustained demands.

The company shall establish and implement *Equipment Control Procedure* and *Monitoring and Measuring Devices Control Procedure* to manage the type-selecting, acquisition, identification/calibration, using, maintenance and discard of equipments and test instrumentations in the process of products realization.

※ Associated Documentation

*Equipment Control Procedure*

*Monitoring and Measuring Devices Control Procedure*

## 6.4 Work Environment

The company shall confirm the required work environment to achieve the product conformity and manage the conditions related to the product compliance in work environment .

The company shall insure the work environment can make positive impact on staffs' ability, satisfaction and performance, and tries to create a suitable work environment, such as the combination of human factors and material factors. The company shall consider:

1. Human factors

—— Common sense of safety and regulations, including the use of protective equipment and materials;

—— Creative methods and further participating chances to exert the potentials of each member in company;

—— Ergonomics.

2. Material factors

—— Sanitation, cleanness, smell, noise, vibration and pollution, etc.

—— Temperature, humidity and lighting, etc.

The company shall define the requirements of 5S and keep work site clean and order, and manage the safe production activities to produce safely.

The company shall encourage employees to propose reasonable solutions actively and inspire the proposers and executors by *Quality Award Management* to exert the potential of every member.

※ Associated Documentation

*Quality Award Management*

## 7.1 Planning of product realization

The company shall make plan to achieve product realization that referred to direct processes, such as customer-related processes, design and development, purchase, production and service support and testing, etc.; it also involves support processes, such as policy and objectives management, documents management, records management, resource management, auditing, data analysis, corrective and preventive measures.

The company will obtain the value-added products through direct process of product realization, while the company will also require support process which can produce added value indirectly. The company will plan to achieve the products realization by sound system technology and determine appropriate contents as follows:

1. Quality objectives and requirements for the product;
2. The need to establish processes, documents and provide resources specific to the product;
3. Required verification, appraisal, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance;
4. Records needed to provide evidence that the realization processes and resulting product meet requirements.

Output of plan can be in documents or physical forms that are suitable for the company operation, but the documentation extent of processes shall support the company operation effectively and efficiently.

The company shall establish and implement *Design and Development Control Procedure* to manage the planning activities of products realization processes and then take necessary measures to specify the required resources in the process of quality management systems to ensure that products meet the goals and requirements.

Technical department shall determine the required processes of product design and development and then plan, output and use the *Tasks Book of Technology Development*; according to the requirements of specific products, projects or contracts, associated departments should plan and output appropriate quality plans in the forms of present systematic documents.

In particular to guarantee the requirements realization of specific products, projects or contracts, if the departments may be arranged other authorities and duties by the company (such as establishment of project teams, etc.), they shall perform with specific authorities and duties.

※ Associated Documentation

*Design and Development Control Procedure*

## 7.2 Customer-related processes

### 7.2.1 Determination of requirements related to the product

The company shall determine:

1. Requirements specified by the customer, including the requirements for delivery (such as delivery date and packaging, etc.) and post-delivery activities (such as installation guidance, counseling, skills training and customer services, etc.);
2. Requirements not stated by the customer but necessary for specified or intended use where known, like safety and reliability;
3. Statutory and regulatory requirements related to the product, including statutory and regulatory requirements related to product and product realization process in the aspect of environmental, safety and health, etc.;
4. Any additional requirements determined by the company, such as the demands related to characteristics.

### 7.2.2 Review of requirements related to the product

The company shall review the requirements related to the product before providing commitments to customers, such as the submission of tenders, acceptance of contracts or orders and acceptance of changes in the contracts or orders, and ensure that:

1. Products requirements are identified and defined;
2. When contract requirements differ from those previously expressed, the company can meet these new requirements;
3. The company has the ability to meet the defined requirements;
4. Where the customers provide no documented requirements, such as oral or informal requirements, the customers requirements shall be confirmed by the sales department before acceptance and record;
5. Where product requirements are changed, the company shall ensure that relevant documents are amended and that relevant departments and personnel receive the changed requirements.

### 7.2.3 Customer communication

Effective communication with customers is an effective method to make the company goals and activities comply with the customers' demands and expectations. The company shall found the customer communication channels and the communication information may contain:

1. Product information which in the form of products advertisements, conference propagandizing, website notices and technical exchanges to communicate;
2. Customer enquiries, contracts or orders handling, including amendments;
3. Customer feedback on the products, including compliments and complaints.
4. Deal with customer feedback in time. If the feedbacks have commonness, the company shall inform other customers influenced by such problems.

The company shall establish and implement *Contract Appraisal Control Procedure* to manage the customer requirements, and clearly define and document each requirement of customer through appraisements, and resolve any inconsistencies between the tenders and orders. The company shall have the capacity to meet the requirements of contracts or orders. The company shall keep appraisements and measurement records arising from the appraisements.

The company shall establish and implement *Service Control Procedure* to manage the customer services required by customers to achieve effective communication with customers and provide appropriate services to their customers timely in order to improve satisfaction constantly.

※Associated Documentation

*Contract Appraisalment Control Procedure*

*Service Control Procedure*

## 7.3 Design and development

Design and development is the key process for products realization. Quality of product design will determine the inherent quality of products and it will be the essential impact on the final products. Therefore, the company has involved in continuously improving its product design and development quality to avoid defects which will cause the quality losses and customer complaints.

### 7.3.1 Design and development planning

Design and development planning is an effective way to make the design achieve the anticipate targets, which will determine the products characteristics (functional, performance, physical and sensory characteristics, etc.) or norms (products norms, materials norms and drawings, etc.).

On the basis of collection and analysis internal and external information, the company shall have product research plans. The information could include target markets and customers, product performance, technology, cost and economy efficiency, etc.

According to product characteristics and complexity, company's current situation and experience, etc., the company shall compose the *Tasks Book of Technology Development* to determine:

1. Product design and development stages;
2. The review, verification and validation that are appropriate to each design and development stage;
3. The responsibility and authorities for products (including processes) design and development to clear associated interfaces and ensure effective communication;
4. Resources and supports required, including financing and personnel.

As the design and development going on, if requirements or circumstances change, such as product goals, resources and other changes resulting in the amendment or update of technology development tasks book, the responsible departments shall prompt timely (within two weeks) and carry out after authorization.

### 7.3.2 Design and development input

The companies shall determine inputs related to products requirements and keep records. These inputs shall include:

1. External input, such as customer or market demand and expectations, customer feedbacks, contract requirements, relevant laws and regulations, product standards and industry norms, etc.;
2. Internal input, such as company policy and objectives, present processes, existing products records and data, past experience and lessons, the existing R&D results and other outputs.
3. Determine inputs of safety and reliability, religion and environmental protection related to products or process characteristics, such as transport, storage, operation environment and customer preferences.

The company shall review the above inputs to ensure if they are appropriate and sufficient. It will not only reflect all products requirements, but also be suitable for company. The requirements shall be complete, clear and not contradictory.

### 7.3.3 Design and development output

The output of design and development shall be in a form that enables verification against the design and development input and shall be approved prior to release. Design and development outputs shall:

1. Meet the input requirements for design and development;
2. Provide appropriate information for the follow-up processes of guiding documents, drawings or norms, including purchasing, production, installation and services;
3. Contain or refer product acceptance criteria;

4. Specify the characteristics of the product that are essential for its safety and proper use.

#### **7.3.4 Design and development review**

At suitable stage of design and development, the design department shall perform systematic reviews to design and development in accordance with planned arrangements:

1. To evaluate if results of design and development can meet requirements;
2. To identify any problems and propose necessary measures.

Participants in such reviews shall include representatives of departments related to the design and development. Technical experts and external parties can be invited if necessary.

The company shall keep the review results of design and development and records of any necessary measurements.

#### **7.3.5 Design and development verification**

To ensure the design and development outputs can meet requirements, design department can validate the design results through calculation change, test validation, similar design comparison and design output assessment in accordance with planned arrangement. After the completion of the design, product verification can be implemented by sample trial-production; verification of operation conditions (processes, equipment and production facilities, etc.) can be carried out by batch trial-production.

The company shall keep the verification results of design and development and records of any necessary measurements.

#### **7.3.6 Design and development validation**

To ensure products can meet the requirements for specified application or intended use where known, the company shall perform *Qualification Assessment Procedure* to validate the design and development in order to confirm the company can achieve the products realization process and produce final products which will meet the customers' specified requirements. Wherever possible, design and development validation shall be completed prior to the delivery or realization of products; local validation can be considered if it is impossible to validate all. Customers can be invited to participate in this local validation to do assessment and delivery trial.

On the Basis of the above, complete design and development of products can be output after the technical appraisal meeting chaired by Chief Engineer.

The company shall keep the validation results of design and development and records of any necessary measurements.

#### **7.3.7 Control of design and development changes**

After the design and development output approved or product finalized, the department found problems on design or products improvement shall feedback that information, and based on the comprehensive evaluation (including changes to the components of products and impact on the delivery of products) R&D department shall propose the exchanging solutions with the corresponding background information for approval.

According to specific changes, ratifiers can decide to review, verify and validate the changees and then implement. Design changes can be carried out after approval.

The company shall keep the review results of changes and records of any necessary measurements.

The company shall establish and implement *Design and Development Control Procedure* to control the whole process of design and development in order to ensure products can meet the requirements for specified application or intended use

※ Associated Documentation

*Design and Development Control Procedure*  
*Qualification Assessment Procedure*

## 7.4 Purchasing

### 7.4.1 Purchasing process

The company shall dedicate to establish mutually beneficial relationship with suppliers whose amount shall be adequate to keep such a relationship.

According to the influence of purchased materials on the products realization processes and final products, the company can divide the purchasing materials into A, B and C.

The company shall make rules to select, evaluate and re-evaluate the suppliers and keep results and records of evaluation. Information like communication with suppliers, supplying performances and market credibility of suppliers shall be taken as the input of evaluation.

The company shall establish and implement *Suppliers Control Procedure* and take appropriate actions to evaluate the capability of suppliers regularly and select and retain qualified suppliers to make sure that the purchasing materials can meet the specified requirements

### 7.4.2 Purchasing information

Before communicating the purchasing information with suppliers, the company shall ensure that the purchasing requirements are sufficient and appropriate and shall actively attract supplier (using their expertise) to involve in the establishment of purchasing rules; for qualified suppliers, the company can use their existing quality management systems and resources to achieve seamless purchasing if possible.

Purchasing information shall be described in existing purchasing documents, which may include:

1. Requirements for approval of products, procedures, processes and equipments;
2. Requirements for qualification of personnel;
3. Quality management system requirements;
4. Comprehensive strength requirements.

For the certificated products, key components and materials must be identical with the certificated tested samples. If there are changes on key components and materials, they must be tested to ensure the changes cannot have impact on the performance or quality of the final products and the changing information shall be informed to the product certification units.

### 7.4.3 Verification of purchased materials

To ensure purchased materials meet specified purchasing requirements, the company shall determine testing/certification methods on key components and materials to make sure they meet the specified requirements and use all resources selectively to verify purchased products, like incoming quality control, testing and measuring, checking qualification documents from the suppliers and testing and verifying at the suppliers', etc.

Where the company or its customers will intend to perform verification at the suppliers', the company shall state the intended verification arrangements and methods of products release in the purchasing information (like purchasing contracts and orders, etc.). The company shall determine the verification requirements and ask the suppliers to offer related verification data. Customers' verification cannot exempt company responsibility to supply acceptable products as well as the rejection from other companies.

The company shall establish and implement the *Purchasing Control Procedure* to manage purchasing activities like verification of purchasing information and purchased products to ensure that purchased products meet specified requirements.

※ Associated Documentation

*Suppliers Control Procedure*  
*Purchasing Control Procedure*

## **7.5 Production and service provision**

### **7.5.1 Control of production and service provision**

The company shall pre-plan the production and service provision considering all factors (4M1E) like technical parameters, personnel, equipments, materials, manufacturing, monitoring and measuring methods that can affect the process of production and services. The company shall apply scientific management to make the process of production and services under control in order to ensure the production quality and service quality. Controlled conditions shall include:

1. the availability of information that describes the characteristics of the products, including technical documents, operation plans and work instruction as necessary;
2. the use and maintenance of suitable equipments;
3. the offer of suitable working environment ;
4. the collocation and use of suitable monitoring and measuring devices which have to meet the requirements of accuracy and precision;
5. the implementation of monitoring and measuring;
6. the determination of products identification of aiming at required measurement and verification;
7. the implementation of release, delivery and post-delivery activities;
8. the identification of key processes and determination of control methods, and the corresponding qualification of operators.

### **7.5.2 Validation of process for production and service provision**

The company shall validate any processes for production and service provision where the resulting output is not easy and cannot be verified by subsequent monitoring or measurement. The company shall determine it as special processes , like strap welding, and verify the ability of these process to achieve planned results.

According to the characteristics of the special processes, the company shall validate and control the special processes, as applicable:

1. defined criteria for review and approval of process;
2. approval of equipment and qualification of personnel;
3. use specific methods and procedures;
4. requirements for records;
5. revalidation for the above conditions (such as new equipment and new processes).

The company shall distinguish the decisive processes for product quality as key processes, like pasting and welding (bridge, lead sheathing and tab). When there are large changes on the key processes (new equipments), it shall be validated through first piect test or validation to the changed products to ensure the changed process can meet the anticipated demand and shall be informed to the product certification units.

### **7.5.3 Identification and traceability**

The company shall establish and implement requirements of products and their status identification by identification cards, work orders, run cards, region collocation and records, etc. to identify products through product realization, delivery and customer service; and identify the products status from required measurements and validation, including inspecting, qualified and unqualified, etc.

Where traceability is required, the company shall control and record the unique identification of the product number and identified records. The following traceability can be achieved combined with production records:

1. the sources of raw materials and components;
2. the history of processing;
3. the distribution, sites and applications after the product delivery.

The company shall establish and implement *Product Identification and Traceability Control Procedure* to control the identification and traceability activities and ensure the identification can achieve specified requirements of traceability.

#### **7.5.4 Customer property**

The company shall exercise care with customer property while it is under the company's control and be used by the company, including products, facilities, equipments and intellectual property rights, etc.

The company shall identify, verify, protect and safeguard customer property appropriately.

If any customer property is lost, damaged or otherwise found to be unsuitable for use, this shall be reported to the customer and records maintained.

The company shall establish and implement *Customer Property Control Procedure* to protect customer property.

#### **7.5.5 Preservation of products**

The company shall preserve the conformity of product during internal processing and delivery to the intended destination in order to prevent the damage, degeneration and misuse.

The company shall preserve products by necessary preserving identification, suitable handling methods and equipments, appropriate packing methods and materials, favorable storage environment and facilities, identification, preservation and safeguard during the storage.

Preservation shall also apply to the spare parts of a product.

The company shall establish and implement the *Production Delivery Control Procedure* to control the process from raw materials putting into production to product leaving factory and delivery, including the product conditions control, special process validation, **outsourcing** transport control and preservation, etc; and produce under the preservation to make the special processes achieve planned ability and preserve products during transport transfer.

The company shall establish and implement the *Service Control Procedure* to control the customer service from the delivery to specified quality guarantee period, including installation, acceptance, inspection, failure of product or customer feedback analysis, disposal and customer training, etc. and deal with customer feedbacks effectively to ensure that customers can use products normally.

※ Associated Documentation

*Product Identification and Traceability Control Procedure*

*Customer Property Control Procedure*

*Production Delivery Control Procedure*

*Service Control Procedure*

## 7.6 Control of monitoring and measuring devices

The company shall control the monitoring and measuring devices complying with the product requirements. The measurement uncertainty shall be known and it shall be consistent with the required measuring ability. The company shall consider to eliminate potential errors in the process, like “error prevention” to minimize the control requirements of measuring and monitoring devices and improve performances of control process.

When measuring equipments are used to measure product compliance and process parameters, it and the measuring results shall be effective and so:

1. calibrate or verify at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; where no such above standards exist, the basis used for calibration or verification shall be recorded; where the company will do calibration or verification, qualified personnel shall do calibration and verification under favorable environment.
2. identify the calibration state of measuring devices and validate the measuring devices with the symbols of calibration or identification records the company approved.
3. insure the favorable environment for monitoring and measuring.
4. safeguard from adjustments that would invalidate the measurement result.
5. preserve the records of calibration, inspection and validation for measuring equipments.
6. assess and record the validity of the previous measuring results when the equipment is found not to conform to requirements; and take actions on the tested products when the results of calibration and validation invalidate and preserve the inspection results and measurement records.
7. protecte from damage and deterioration during handling, maintenance and storage.
8. confirm if the ability of computer software for monitoring and measuring can meet the anticipating purposes before the using and re-confirm if necessary.
9. inspect regularly the operation of measuring devices for out-going quality control in addition to normal use and regular calibration in order to determine whether measuring devices can be used for measuring activities.

The company shall establish and implement *Monitoring and Measuring Devices Control Procedure* to identify monitoring and measuring requirements, manage monitoring and measuring devices, transfer the value accurately, measure the product and process results exactly and offer evidences if products meet the requirements.

※ Associated Documentation

*Monitoring and Measuring Devices Control Procedure*

## 8.1 General of measurement, analysis and improvement

The company shall plan and implement the monitoring, measurement, analysis and improvement processes needed:

1. to demonstrate conformity of the product,
2. to ensure conformity of the quality management system, and
3. to continually improve the effectiveness of the quality management system.

In the implementation of measurement, analysis and improvement, the company shall fully consider the following matters:

1. turning the monitoring and measurement data into information and knowledge that can benefit the company;
2. using the measurement, analysis and improvement of products and processes to determine the appropriate priorities for the company activities;
3. reviewing measurement methods the company used regularly and certifying the data accuracy and integrity continuously;
4. taking the level contrasts of each process to improve the effectiveness and efficiency of process;
5. focus on the important influence of evaluate the company performance by customer satisfaction survey results;
6. paying attention to using measuring results and the importance of the formation and communication of the obtained information to company, and take them as the basis of company performance improvement and relevant parties participation;
7. providing appropriate tools and channels by the gained information from the measurement results analysis;
8. measuring communication effectiveness and efficiency to determine whether the information can be understood timely and clearly;
9. monitoring and analyzing the data of processes and products performance to understand the characteristics better and improve the process control when the processes and products performance can be satisfied;
10. Using appropriate statistical techniques or other management tools to understand processes and measurement variation better, and therefore enhance the processes and products performance by variation controlling;
11. carrying out self-evaluation periodically to assess the maturity level of quality management system, company performance, and identify performance improvement opportunities.

## 8.2 Monitoring and measurement

### 8.2.1 Customer satisfaction

The companies shall focus on customers and it shall monitor and measure information relating to customer perception as to whether the company has met customer requirements which can be used to assess the extent of customer satisfaction from the company.

The companies shall establish processes which collect, analyze and use the customer-related information; identify data collection methods which include information sources, methods and frequency, data analysis and applications.

The information of customer satisfaction measurements can include products compliance, delivery and post-delivery information, customer satisfaction, customer complaints or others.

The company shall establish and implement *Customer Satisfaction Control Procedure* and *Customer Satisfaction Measurement Methods* to identify improving opportunities to achieve sustained customer satisfaction.

The measurements results of customer satisfaction shall be input into the management review.

### 8.2.2 Internal audit

The company shall plan and implement internal audit to determine whether the quality management system can:

1. conform to the arrangements, the requirement of ISO9001:2000 international standards and requirements of the quality management system established by the company.
2. be implemented and maintained effectively.

The company shall establish audit plans and define the guidelines, scope, frequency and methods of audit based on the audit processes, regional status and importance as well as results of previous audits.

Management representative will appoint auditors for each audit, nominate head of audit and allocate audit resources.

Head of internal audit shall have qualification certificate of internal auditor and auditors shall hold certificates granted by the company. They cannot audit their own work in order to confirm the objectivity and fairness.

The audited department director shall take actions to deal with the findings in the audit to eliminate the unqualified items and their causes. During the internal audit, the audit team shall audit the satisfaction level of the company quality management system against the required level of the products verification unit and the customer complaints shall be input into the internal audit.

The company shall establish and implement *Internal Audit Control Procedure* to manage the internal audit process, monitor the performance of quality management system and ensure the conformity and effectiveness of its operation.

The results of internal audit shall be input into the management review.

### 8.2.3 Monitoring and measurement of processes

The company shall apply suitable methods for monitoring and, where applicable, measurement of the quality management system processes. These methods shall demonstrate the ability of the processes to achieve planned results. These methods may include meters, auditing, examination, identification, itinerant inspection, first piece testing, sample testing, control chart mapping, capacity analysis of supply and demand.

When planned results are not achieved, correction and corrective action shall be taken, as appropriate, to ensure conformity of the product by implementing *Data Analysis Control Procedure* to analyze the data and examine the affected extent.

#### **8.2.4 Monitoring and measurement of product**

The company shall compose quality standards such as *Technical Standards of Purchased Product*, *Technical Standards of Manufacturing Products* and *Technical Standards of Final products* to determine and define the products measuring requirements. According to technical standards and technical process, the quality management department shall establish and implement *QC Chart* to monitor and measure products in the appropriate processes of product realization.

The company shall keep the evidence for products monitoring and measurement. Specified inspectors shall sign their signatures when products put into storage and go out of the factory, and they cannot let the products into storage and out of the factory before defined monitoring and measurement finishing in addition to some emergency situation with authorized person(s) approval and, where applicable, by the customer. The final test at least shall meet the requirements of national standards and products verification standards.

The companies shall establish and implement *Monitoring and Measurement Control Procedure* to manage the monitoring and measurement activities for the purchased products, processes products, final products and production process in order to validate that the requirements have been met and the process capabilities are appropriate.

※ Associated Documentation

*Customer Satisfaction Control Procedure*

*Internal Audit Control Procedure*

*Monitoring and Measurement Control Procedure*

### 8.3 Control of nonconforming product

All members of the company, especially those who work in monitoring and validating to the process output, shall have the responsibility to report the found nonconforming products or potential nonconforming products at any stage in process.

The company will define the departments who are responsible to reply the nonconformity and take corrective or preventive actions and monitor relative activities as functional departments. The Reply mechanism of nonconformity shall include the person responsible for process and other persons who will influence the process requirements and capacity.

Nonconformity review and disposal shall have certain authority and resources. The company shall appoint person to review nonconformity and these person shall have capabilities to evaluate the influence produced by nonconformity and analyze and conclude the trends and rules for nonconformity producing.

By reviewing, the company shall implement *Quality Improvement Control Procedure* to dispose and correct nonconformity properly. According to the nature of the nonconformity, the company shall identify the potential nonconformity, if necessary, shall implement *Quality Improvement Control Procedure* to take appropriate preventive actions.

Nonconforming product can be dealt with by one or more of the following ways:

1. By taking action to eliminate the detected nonconformity.
2. By authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer.
3. By taking action to preclude its original intended use or application.

Records of the nature of nonconformity and any subsequent actions taken, including concessions obtained, shall be maintained. When nonconforming product is corrected it shall be re-verified to demonstrate conformity to the requirements.

The company shall together and analyze nonconforming product regularly (normally monthly) including trend analysis to seek opportunities to implement corrective or preventive measures.

The company shall monitor the impact of nonconformity on the process, particularly monitor the impact of different disposal methods on the process efficiency and record all the nonconformities and their disposal for information providing to analyze and improve activities.

The company shall establish and implement *Nonconforming Product Control Procedure* to identify and control of nonconforming products, and define authorities and duties for disposal to prevent unintended use or delivery of nonconforming products.

※ Associated Documentation

*Nonconforming Product Control Procedure*

*Quality improvement control procedure*

## 8.4 Data analysis

Data analysis can be used to identify the existing or potential causes that may make the company to take the necessary correctives and improvements.

The company shall identify and adopt appropriate statistical technology or management methods and collect, analyze the data and information from inside and customers to find and determine improvement opportunities comparing with company's plans, objectives and other performance assessment indicators. When analyze, the company shall have strategic management perception covered the entire system and opinions considering the important process operation. The company shall not only analyze the data and information from customers, but also analyze some challenges, competitor behaviors and performance levels that influence company indicators. When appropriate, these information shall be included in the company plan or strategic policy.

Through data analysis, the following information shall be confirmed:

1. Measurement results of custom satisfaction;
2. Conformity to products requirements;
3. Characteristics and trends of processes and products, including opportunities to take preventive measures;
4. Process effectiveness and efficiency;
5. Supplier.

The company shall establish and implement *Data Analysis Control Procedure* to manage the data collection and analysis so as to improve the accuracy and efficiency of data analysis.

※ Associated Documentation

*Data Analysis Control Procedure*

## 8.5 Improvement

### 8.5.1 Continuous improvement

The company shall use the quality policy, quality objectives, audit results, data analysis, corrective and preventive measures and management review to implement effective quality improvement with the principle of prevention, and to maintain continuous improvement of quality management system effectiveness.

The company shall pursue better enterprise inspirits and seek opportunities continuously of improving the quality management system so as to achieve quality objectives, continual improvement measures including daily incremental improvements and great improvements. Daily incremental improvements shall be implemented by quality management department. The great improvements shall be implemented as projects or tasks in company annual plans.

### 8.5.2 Corrective Action

The company shall take action to eliminate the causes of nonconformity in order to prevent recurrence. Corrective actions shall be appropriate to the effects of the nonconformity encountered.

The company shall establish and implement *Quality Improvement Control Procedure* to manage the following requirements:

1. Reviewing nonconformity (including customer complaints);
2. Determining the causes of nonconformities;
3. Evaluating the need for action to prevent recurrence of integrated risk, benefits and costs to determine the necessary corrective actions to take or not;
4. Determining and implementing action needed;
5. Recording the results of actions taken;
6. Reviewing corrective action taken as well as futher analyzing and improving.

### 8.5.3 Preventive action

The company shall detrmine action to eliminate the causes of potential nonconformity in order to prevent their occurrence. Preventive action should be appropriate to the effects of the potential matters.

The company shal establish and implement *Quality Improvement Control Procedure* and manage the following requirements:

1. determinging potential nonconformities and their causes;
2. evaluating the need for action to prevent the occurrence of nonconformities and determine to take necessary preventive actions or not;
3. Determining and implementing action needed;
4. Recording the results of actions taken;
5. Reviewing corrective action taken as well as futher analyzing and improving.

The company shall preserve the relative records of preventive actions and input into the management review.

※ Associated Documentation

*Quality Improvement Control Procedure*