Alliance LLC

1450 CLARK DRIVE, VALPARAISO, IN. 46385
TEL: 219-548-3799 FAX:219-548-7071 WWW.ALLIANCEORG.COM

QUALITY POLICY MANUAL

INTRODUCTION **REV DATE**: June 30, 2014

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1) Scope

This **QUALITY POLICY MANUAL** encompasses the quality system of **ALLIANCE LLC.** for compliance with ISO-9001:2008 (published as QUALITY SYSTEM REQUIREMENTS, in the fourth printing, August 2010). Specifically, this addresses Alliance LLC' quality system as it relates to the inspection, warehousing, and distribution of permanent magnets, motors and assemblies at the Valparaiso, Indiana location.

2) Goals

To supply the best permanent magnets, motors and assemblies at the most cost effective prices, which enables our customers to make the highest quality products, and then offer those products with the greatest amount of value. We will provide continuous improvement for the emphasis of the prevention of shipping any defective parts and to reduce part variation. We will achieve this mission through the following actions:

A) Continuously review our suppliers quality programs.
B) Monitor, through SPC measurement data, our suppliers' materials.
C) Review pricing structures for optimum cost reductions, and to pass along savings to our customers.
D) Develop new magnet sources, as they become available to offer cost savings and/or quality improvements.
E) Perform self-audits to continuously improve our quality of: documentation, inspection, and overall efficiency and effectiveness as a permanent magnet supplier.
F) To continually to seek new ways to serve our customers.

3) Format

This policy is formatted to comply with **ISO-9001:2008** standards and requirements.

QUALITY POLICY

1) **Statement of Policy**

Quality can be controlled and improved through: proper procedures, thorough documentation, and a commitment to reduce part defects and variations. Quality improvement must permeate all facets of our functions in order to exceed our customers' expectations.

2) **Commitment For Implementation**

The responsibility for the implementation of this policy resides with each employee of **ALLIANCE LLC.** The signature of the President of Alliance LLC represents the commitment of the employees to this quality policy:

Dan P. Vukovich *June 30, 2014*

Dan P. Vukovich
President
ALLIANCE LLC.

Date

4.1.1 **Quality Policy**

Alliance LLC management is committed to the quality objectives in this quality policy manual, and in the implementation, execution, and the understanding by all employees of this and the quality procedure manual.

4.1.2 **Organization**

4.1.2.1 Responsibility and Authority: The responsibility of the quality of Alliance LLC' work and procedures will lay with the Director of Operations. All people (industrial engineers and/or hourly workers) will report to the Director of Operations concerning all quality issues and procedures. These people will have the authority to halt any process or shipment that they believe to be anything but the highest quality. They will also be able to make recommendations on improving our quality, and will be required to record and report any quality problems.

4.1.2.2 Resources: The quality program will be overseen by a degreed engineer. All personnel will be properly trained and provided with proper equipment to carry out their job functions. Internal quality audits will be utilized for verification of procedures.

4.1.2.3 Management Representative: The President of Alliance LLC has appointed the Director of Operations as the person responsible for ensuring that the quality policy and procedures are followed and maintained to the ISO-9001 standards. He will also report to Alliance LLC' suppliers for a review of quality.

Organizational Interfaces: Alliance LLC will use multi-disciplinary approach for decision making process for the following functions: Technical, purchasing, quality, packaging, and sales.

4.1.3 Management Review

The management of Alliance LLC will review the quality system on a quarterly basis to determine if any changes or improvements need to be made.

4.1.4 **Business Plan**

Alliance LLC' business plan is made of short term (1 year or less), and long term (up to 5 years) goals. The business plan aims at improving our process, and determine how Alliance LLC can better serve customers. Alliance LLC' business plan will not be available for review.

4.1.5 **Analysis and Use of Company-Level Data**

Data collected from SPC measurements and other operational performance criteria will be compared to the standards set forth by MMPA (Magnetic Materials Producers Association). Trends will be used to make changes in manufacturing and a review of the quality procedure.

4.1.6 **Customer Satisfaction**

Alliance LLC will measure customer satisfaction on a bi-annual basis. Satisfaction will be measured through a variety of criteria including: on-time delivery, reject rate, proper packaging and bar-coding, accuracy of part count, accuracy of paperwork, pricing compared to industry averages. Other criteria will be added as necessary.

4.2.1 **General**

Alliance LLC has developed a quality procedure manual that documents our quality system so that product meets all specified requirements. The procedure manual coupled with this quality procedure ensures that ISO9001 standards are met for the Valparaiso, Indiana facility of Alliance LLC.

4.2.2 **Quality System Procedures**

Alliance LLC has developed a procedure manual that is consistent with ISO9001 standards as well as this quality policy. Alliance LLC' quality systems will be implemented through the direction of the Director of Operations.

4.2.3 **Quality Planning**

1) Quality planning has been done with the aid of the Advanced Product Quality Planning and Control Plan reference manual.

2) Special characteristics have been established during the preparation of: FMEAs, control plans, measurement methods, measurement documentation and statistics, inspection reports, process flowcharts, lot traceability, bar coding, packaging, and shipping methods. These special characteristics will be noted and reviewed to insure that all quality goals are met.

2) Use of cross-functional teams will be used (Engineering management and quality people) whenever a new or changed product goes into production. Actions that will be undertaken by the team include the development of special characteristics, development and review of FMEAs, the establishment of actions to reduce the rejects/failures, and to develop and review control plans.

3) Feasibility reviews of manufacturing will be done by Alliance LLC on a continuing basis for new and existing parts to insure that: materials, and production methods, will conform to the engineering requirements set forth by the customer. The APQP reference manual will follow reviews.

4) Process failure mode and effects analysis have been done to work toward the goal of achieving defect prevention.

5) A control plan covering pre-launch and production, has been developed that encompasses receiving, incoming inspection (SPC data measurement and analysis), storage, repackaging, and shipping.

6) The control plan will be reviewed and updated when any of the following items occurs: product is changed, processes are changed, processes become unstable, or the processes become non-capable.

4.3.1 **General**

Alliance LLC has established documented procedures for contract review and the coordination this procedure.

4.3.2 **Review**

The review of a contract with the customer will be completed only after: the requirements are defined and documented, any differences between customer and Alliance LLC is resolved, Alliance LLC insures that they have the capability to meet the contract requirements.

4.3.3 **Amendment to a Contract**

If an amendment to a contract is made, Alliance LLC will insure that it is correctly implemented, and functions are changed to reflect the amendment.

4.3.4 **Records**

A record of all contracts and contract reviews will be maintained.

At this time Alliance LLC is involved in the design and manufacturing of DC motors via design consultants and outside sources. Design Control is implemented using the standards set forth by the subcontracted parties.

4.5.1 **General**

Alliance LLC has established documented procedures to control documents and data that are required by ISO-9001 standards, and include: a drawing, test results, orders, shipping information, etc.

Reference documents: will be kept readily available and up to date to include any revisions. These documents will include but not limited to: engineering drawings, inspection instructions, test procedures, quality procedures, material specifications.

Document identification for special characteristics: Alliance LLC will mark with a symbol specified by the customer, all documents that have process steps that contain special characteristics (as required by the customer). Alliance LLC reserves the right to keep documentation on either hard copies or on computer software.

4.5.2 **Document and Data Approval and Issue**

Alliance LLC will use a master list to identify the revision level for all documents pertinent to ISO9001 standards. In addition Alliance LLC will maintain a record of the date on which changes are implemented in production along with those changes. A weekly review will be done of documents pertaining to customer changes, with appropriate actions taken for the change and distribution of these documents.

4.5.3 **Document and Data Changes**

Changes in documents and data will be allowed to be reviewed by the same organizations that performed the original review, and will be allowed to have access to pertinent background information.

4.6.1 **General**

Alliance LLC has established and will maintain documented procedures to ensure that purchased products conform to specified requirements. This will be part of the inspection portion of our quality control program.

Approved Materials for Ongoing Production: Alliance LLC will purchase relevant materials only from subcontractors on the customer's approved subcontractor list. Additional subcontractors will only be used after they have been added to the customer's list via Material Engineering activity. All material used will conform to government and safety constraints on restricted toxic and hazardous materials, as well as environmental, electrical and electromagnetic considerations applicable to the country of manufacture.

4.6.2 **Evaluation of Subcontractors**

Alliance LLC will:

1) evaluate and select subcontractors on the basis of their ability to meet quality specifications.
2) define the control we can exercise over the subcontractors for quality procedures and documentation.
3) establish and maintain quality records of acceptable contractors.

Subcontractor development: will be done through the subcontractor quality system development using Section I and II of ISO-9001 as the fundamental quality system requirement. Assessments will be done once a year or as required.

Scheduling Subcontractors: Alliance LLC will demand 100% on-time delivery from subcontractors, however, proper lead-times must be adhered to. Alliance LLC will track on time delivery service.

4.6.3 **Purchasing Data**

All purchase orders will clearly state the following information:
1) Material and grade.
2) Part number.
3) Title and number of issue of the quality system standard.
3) Drawings, process requirements, inspection instructions, requirements for approval, date required, P.O. number, delivery instructions, quantity, and any other relevant information.

4.6.3 **Purchasing Data Cont'd**

In addition Alliance LLC will review and approve purchasing documents for adequacy of specified requirements prior to release.

Restricted Substances: all materials will be verified that they are not in violation with governmental and safety constraints in reference to restricted, toxic, and hazardous substances.

4.6.4 **Verification of Purchased Product**

4.6.4.1 **Supplier Verification at Subcontractor's Premises - ISO**: If Alliance LLC proposes to verify purchased product at the subcontractor's premises, Alliance LLC will specify verification arrangements and the method of product release in the purchasing agreements.

4.6.4.2 **Customer Verification of Subcontracted Product - ISO**: Alliance LLC' customer or their representative will have the right go to Alliance LLC' subcontractor to verify that the subcontracted product conforms to specified requirements. However, the supplier as evidence of effective control of quality shall not use such verification by the subcontractor.

Verification by Alliance LLC' customer shall not absolve Alliance LLC of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by the customer.

4.7 **Control of Customer-Supplied Product**

Alliance LLC has developed documented procedures for the control of verification, storage and maintenance of customer supplied product. Any product received that is: lost, damaged, or otherwise unsuitable for use shall be recorded and reported to the customer.

Verification by the supplier does not absolve Alliance LLC from the responsibility to provided acceptable product.

Note: Customer-owned tooling and returnable packaging is included in this element (also see 3.3 and 4.15.4).

4.8 **Product Identification and Traceability**

Alliance LLC has established and will maintain documented procedures for identifying the product from receiving through shipping, and all stages of inspection and storage in-between. Alliance LLC recognizes the need to be able to trace material back to correlating inspection data, and to the origin of manufacture. This is critical in identifying processes that are out of control and producing non-conforming material.

To the extent that traceability is a specified requirement, Alliance LLC will establish and maintain procedures for unique identification of individual product or batches. This will be recorded (see 4.16).

Control labels will be applied to incoming product. Control labels will identify the product during the time that Alliance LLC is in possession of the product. Lot traceability numbers traceable to the control label will be applied, as boxes are ready to ship. Please see the Lot Traceability Procedure (4.8), for more exact details.

4.9 **Process Control**

Alliance LLC will identify and plan the production, installation and servicing processes, which directly affect quality and shall ensure that these processes are carried out under controlled conditions:

1) Documented procedures defining the manner of production (where applicable), installing and servicing, where the absence of such procedures could adversely affect quality.

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

3) Compliance with reference standard codes, quality plans and/or documented procedures.

4) Monitoring and control of suitable process parameters and product characteristics.

5) The approval of processes and equipment as appropriate.

6) Criteria for workmanship, which will be stipulated in the clear manner via written standards, examples or illustrations.

7) Suitable maintenance of equipment to ensure continuing process capability.

Government Safety and Environment Regulations: Alliance LLC has a process to ensure compliance with all applicable government safety and environmental regulations, including those concerning handling, recycling, eliminating or disposing of hazardous materials. The appropriate certificates of letter of compliance should evidence this.

Designation of Special Characteristics: Alliance LLC will comply with all customer requirements for designation, documentation and control of special characteristics. Alliance LLC will provide documentation showing compliance with these customer requirements as requested by any customer.

Note: All product and process characteristics are important and need to be controlled. However, some characteristics referred to as "special", require extra attention, because of excessive variation may affect a product's safety, compliance with government regulations, fit, function, appearance or quality of subsequent manufacturing operations.

Preventive Maintenance: Alliance LLC will identify key process equipment (when applicable), and provide appropriate resources for machine/equipment maintenance and develop an effective planned total preventive maintenance system. The system shall include but not be exclusive to (when applicable):

1) A procedure that describes planned maintenance activities.
2) Scheduled maintenance activities.
3) Predictive maintenance methods - these methods should include a review of the manufacturer's recommendations, tool wear, monitoring of uptime, correlation of SPC data to preventive maintenance activities, important characteristics of perishable tooling, fluid analysis, infrared monitoring of circuits and vibration analysis.
4) Availability of replacement parts for key manufacturing equipment.

Where the results of the processes cannot be fully verified by subsequent inspection and testing of the product, the processes shall be carried out by qualified operators and/or shall require continuous monitoring and control of process parameters to ensure that the specified requirements are met.

The requirements for any qualification of process operations, including associated equipment and personnel (see 4.18), shall be specified.

Note 16: Such processes requiring pre-qualification of their process capability are considered special processes. Records will be maintained for qualified processes, equipment and personnel, as appropriate (see 4.16).

4.9.1 **Process Monitoring and Operator Instructions**

Alliance LLC will prepare documented process monitoring and operator instructions for all employees having responsibilities for operation of processes. These instructions are to be accessible at the workstation. These instructions have been derived from the sources listed in the "Advanced product Quality Planning and Control Plan" reference manual.

Process monitoring and operator instructions may take the form of process sheets, inspection and laboratory test instructions, shop travelers, test procedures, standard operation sheets, the part number Control Plan, or other documents normally used by the Alliance LLC to provide the necessary information.

4.9.1 **Process Monitoring and Operator Instructions Cont'd**

Process monitoring and operator instructions shall include a reference, as appropriate:

1) Operation name and number keyed to process flow chart.
2) Part name and part number.
3) Current engineering level/date.
4) Required tools, gages and other equipment.
5) Material identification and disposition instructions.
6) Customer and supplier designated special characteristics.
7) SPC requirements.
8) Relevant engineering and manufacturing standards.
9) Inspection and test instructions (see 4.10.4).
10) Corrective action instructions.
11) Revision date and approvals.
12) Visual aids.
13) Tool change intervals and set-up instructions.

4.9.2 **Preliminary Process Capability Requirements**

Preliminary process capability studies will be done for customer designated special characteristics for new processes, and will meet customer requirements. If no requirements have been specified, a Ppk value >= 1.67 will be the goal for preliminary results (less than 30 production days), and for chronically unstable processes. If any of these parameters are not met, the "Production Part Approval Process" will be followed for corrective action. Unacceptable preliminary capability results require re-evaluation of mistake-proofing activities.

Inherent limitations of attributes prevent their use for preliminary statistical studies. Attributes data from early production runs should be used to prioritize process improvements and to begin control charts.

4.9.3 **Ongoing Process Performance Requirements**

The customer defines ongoing process performance requirements, and if no requirements have been established, the following default applies.

1) For stable processes and normally distribute data, a Cpk value >= 1.33 should be achieved.

4.9.3 **Ongoing Process Performance Requirements Cont'd**

2) For chronically unstable processes with output meeting specifications and a predictable pattern, a Ppk value >= 1.67 should be achieved.

3) For non-normal data, methods other than Cpk such as parts per million (PPM), non-parametric analysis, or index techniques will be required to determine performance based on customer requirements.

Significant process events (tool change, machine repair) when applicable, will be noted on the control charts. When data from control charts and functional tests indicate a high degree of capability, the supplier may revise the Control Plan with customer concurrence.

Characteristics identified on the Control Plan that are either unstable or non-capable require initiation of the appropriate reaction plan from the Control Plan. Reaction plans should include containment of the process output and 100% inspection. A supplier corrective action plan will then be completed indicating specific timing and assigned responsibilities to assure that the process becomes stable and capable. The plans are to be reviewed with and approved by the customer when so required.

Regardless of the capability requirement or the demonstrated process capability, continuous improvement is required, the highest priority on special characteristics.

4.9.4 **Modified Preliminary or Ongoing Capability Requirements**

When the customer requires higher or lower capability requirements than the previously stated default requirements, then the Control Plan will be changed accordingly.

4.9.5 **Verification of Job Set-Ups**

Job set-ups will be verified as producing parts that meet all requirements. Documentation shall be available for set-up personnel. Last-off part comparisons will be the standard, with statistical verification being done (when applicable).

4.9.6 **Process Changes**

Production part approval is given for: part number, engineering change level, manufacturing location, material sources and production process environment. Changes in any of these factors generally require prior approval from the customer parts approval activity. Alliance LLC will maintain a record of process change effective dates (see 4.5.3).

Note: Changes to promote continuous improvement are encouraged. Consult the customer for guidance on approval requirements for such changes.

4.9.7 **Appearance Items**

If Alliance LLC supplies parts to their customer that are designated by the customer as "Appearance Items", Alliance LLC will provide:

1) Appropriate lighting for evaluation areas.
2) Masters for color, grain and texture as appropriate.
3) Maintenance of appearance masters and evaluation equipment.
4) Verification that personnel making appearance evaluations are qualified to do so.

4.10.1 **General**

Alliance LLC will maintain documented procedures for inspection and testing activities in order to verify that the specified requirements for the product are met. The required inspection and testing, and the established records will be detailed in the quality plan (Control Plan) or documented procedures.

Acceptance Criteria: for attribute data sampling plans will be zero defects. Appropriate acceptance criteria for all other situations shall be documented by the supplier and approved by the customer.

Accredited Laboratories: will be used when agreed upon with the customer.

4.10.2 **Receiving Inspection and Testing**

4.10.2.1: Alliance LLC will ensure that incoming product is not used or processed (except in the circumstances described in 4.10.2.3) until it has been inspected or otherwise verified as nonconforming to specified requirements. Verification of conformance to the specified requirements shall be in accordance with the quality plan (Control Plan) and/or documented procedures.

4.10.2.2: In determining the amount and nature of receiving inspection, consideration shall be given to the amount of control exercised at the subcontractor's premises and the recorded evidence of conformance provided.

4.10.2.3 Where incoming product is released for urgent production purposes prior to verification, it shall be positively identified and recorded (see 4.16) in order to permit immediate recall and replacement in the event of nonconformity to specified requirements.

Incoming Product Quality: Alliance LLC' incoming quality system will use one or more of the following methods depending on the conditions:

1) Statistical data from traceable calibrated measuring equipment.
2) Receiving inspection and/or testing.
3) Second or third party assessments or audits of subcontractor locations.

4) Part evaluation by accredited contractors or test laboratory.
5) Subcontractor warrants or certifications (will include test results and will be used in combination with one or more of the other methods).

4.10.3 **In-process Inspection and Testing**

Alliance LLC will perform the following:

1) Inspect and test product as required by the quality plan (Control Plan) and/or documented procedures.

2) Hold product until the required inspection and tests have been completed or necessary reports have been received and verified, except when product is released under positive-recall procedures (see 4.10.2.3). Release under positive-recall procedures will not preclude the activities outlined in 4.10.3a.

3) All process activities should be directed towards defect prevention methods, using statistical process control, error proofing, visual controls, rather than defect detection.

4.10.4 **Final Inspection and Testing**

Alliance LLC will complete all final inspection and testing in accordance with the quality plan (Control Plan) and/or documented procedures to complete the evidence of conformance of the finished product to the specified requirements.

The quality plan (control Plan) and/or documented procedures to complete evidence of conformance of the finished product to the specified requirements. No products will be shipped from Alliance LLC until all specified quality procedures have been completed and recorded by authorized personnel.

A layout inspection and functional testing verification will be done for products at frequencies established by the customer. This pertains to customer engineering material and performance standards. Results will be available to the customer upon request.

4.10.5 **Inspection and Test Records**

Alliance LLC will maintain inspection records that provide evidence that the product has been properly inspected and/or tested. The records will clearly indicate whether the product has passed or failed the inspections and/or tests according to the defined acceptance criteria. Any product failing to pass any inspection and/or test, will be labeled and handled as nonconforming product.

4.11.1 **General**

Alliance LLC has documented procedures to control, calibrate and maintain inspection, measuring and test equipment (including test software) used to demonstrate the conformance of product to the specified requirements. The equipment will be used in a manner that ensures that the measurement uncertainty is known and is consistent with the required measurement capability.

When test software or test hardware is used for inspection, they shall be checked to prove that they are capable of verifying the acceptability of product prior to the release for production, and will be rechecked as prescribed in our procedure manual. Records of this procedure will be kept for evidence of control.

Data pertaining to: inspection, measuring, and test equipment, will be made available to the customer for verification of proper control.

4.11.2 **Control Procedure**

Alliance LLC will perform the following to meet ISO9001 standards:

1) determine the measurements to be made and the accuracy required, and select the appropriate inspection, measuring and test equipment that is capable of the necessary accuracy and precision;

2) identify all inspection, measuring and test equipment that can affect product quality, and calibrate and adjust them at prescribed intervals, or prior to use, against certified equipment traceable to national or international standards;

3) define the process employed for the calibration of inspection, measuring and test equipment, including details of equipment type, unique identification, location, frequency of checks, check method, acceptance criteria, and the action to be taken when results are unsatisfactory;

4) identify inspection, measuring and test equipment with a suitable indicator or approved indication record, show the calibration status;

5) maintain calibration records for inspection, measuring and test equipment;

6) assess and document the validity of previous inspection and test results when inspection, measuring or test equipment is found to be out of calibration;

7) ensure that the environmental conditions are suitable for the calibrations, inspections, measurements and tests being carried out;

8) ensure that the handling, preservation and storage of inspection, measuring and test equipment is such that the accuracy and fitness for the use is maintained;

9) safeguard inspection, measuring and test facilities, including both test hardware and test software, from adjustments which would invalidate the calibration setting.

4.11.3 **Inspection, Measuring, and Test Equipment Records**

Records of the calibration/verification activity on all gages, measuring, and test equipment, including employee-owned gages, will include:

*revisions following engineering changes (when appropriate).
*gage conditions and actual readings as received for calibration/verification.
*notification to customer if suspect material has been shipped.

4.11.4 **Measurement System Analysis**

Each type of measuring/test equipment will be analyzed for variations in the test equipment system. The acceptance criteria will conform to the MEASUREMENT SYSTEMS ANALYSIS reference manual. Any variations will be used only if accepted by the customer.

Through inspection and test results, products will be identified as either conforming or nonconforming product. The identification of inspection and test results will be maintained as defined by the Control Plan, and/or documented procedures, to ensure that only product that only product that has passed sampling inspections is delivered to the customer.

Product location will not constitute whether it is conforming or nonconforming product. Product will be labeled "inspected and approved" only after passing the inspection process.

Supplemental verification, when required by the customer, will be agreed upon and met.

4.13.1 **General**

Alliance LLC will maintain documented procedures to ensure that product that does not conform to specified requirements is prevented from the being shipped to the customer. The control for this includes: identification, documentation, evaluation, segregation, disposition of nonconforming product, and for the notification of applicable parties.

4.13.2 **Review and Disposition of Nonconforming Product**

Nonconforming product will be reviewed in accordance with documented procedures. Depending on circumstances, the following options may be used:

1) product reworked to meet the specified requirements,
2) accepted with or without repair by concession,
3) re-graded for alternative applications, or
4) rejected or scrapped.

Repaired and/or reworked product shall be reinspected in accordance with the quality (Control Plan) and/or documented procedure. Any nonconforming material that has been accepted will be recorded to denote the actual condition (see 4.16).

4.13.3 **Control of Reworked Product**

Rework instructions will be accessible and utilized by the appropriate personnel in their work areas.

Nonconforming product will be analyzed and plans followed for determining the best solution for either making the product conform, or for being scrapped.

4.13.4 **Engineering Approved Product Authorization**

Prior written customer authorization is required whenever the product or process is different from that currently approved (see Production Part Approval Process manual for more details). This also applies to products and services purchase from subcontractors. Alliance LLC will maintain a record of the expiration date or quantity authorized and will ensure compliance with the original or superseding specifications and requirements when the authorization expires. Authorized material being shipped will be properly identified on each shipping container.

4.14.1 **General**

Alliance LLC will maintain documented procedures for implementing corrective and preventive action. Alliance LLC will implement and record any changes to the documented procedures resulting from corrective and preventive action.

Problem solving methods will be utilized when an internal or external nonconforming to specification or requirement occurs. When external nonconformances occur, we will respond in a manner prescribed by the customer.

4.14.2 **Corrective Action**

The procedures for corrective action include:

1) the effective handling of customer complaints and reports of product nonconformity;
2) investigation of the cause of nonconformity relating to product, process, and quality system, and recording the investigation results (see 4.16);
3) determination of the corrective action needed to eliminate the cause of nonconformities
4) application of controls to ensure that corrective action is taken and that it is effective.

Returned product will be tested/analyzed for determining the reason for nonconformity. Records of these tests will be kept and made available upon request. Alliance LLC will perform effective analysis (or have it done by qualified companies), and where appropriate, initiate corrective action and process changes to prevent recurrence.

4.14.3 **Preventive Action**

The procedures for preventive action will include the following:

1) the use of appropriate sources of information such as processes and work operations, which affect product quality, concessions, audit results, quality records, service reports and customer complaints, to detect, analyze and eliminate potential causes of nonconformities;

2) determination of the steps needed to deal with problems requiring preventive action;

4.14.3 **Preventive Action Cont'd**

3) initiation of preventive action and application of controls to ensure that it is effective;

4) ensuring that relevant information on actions taken is submitted for management review (See 4.1.3).

4.15.1 **General**

Alliance LLC will maintain documented procedures for handling, storage, packaging, preservation, and delivery of product.

4.15.2 **Handling**

Alliance LLC will provide methods of handling product that prevent damage or deterioration.

4.15.3 **Storage**

Alliance LLC will use designated storage areas to prevent damage or deterioration of product, pending use or delivery. Appropriate methods for authorizing receipt to and dispatch from such areas will be stipulated. In order to detect deterioration, the condition of product in stock will be assessed at appropriate intervals.

Inventory management will be a documented system to continuously optimize inventory turns over time, and to assure stock rotation and minimize inventory levels.

4.15.4 **Packaging**

Alliance LLC will control final packaging and marking (including materials used), to the extent necessary to ensure conformance to specified requirements. Customer packaging standards will be adhered to for packaging guidelines, including applicable service part packaging standards.

Labeling will be done on all packaging to ensure that all materials shipped are labeled according to customer requirements.

4.15.5 **Preservation**

Alliance LLC will apply appropriate methods for preservation and segregation of product when the product is under the supplier's control.

4.15.6 **Delivery**

Alliance LLC will arrange for the protection of the quality of product after final inspection and test. Where specified by contract, the protection may be extended to include delivery to destination.

4.15.6 **Delivery Cont'd**

Alliance LLC will maintain the system to support 100% on-time shipments to meet customer production and service requirements. If 100% on-time shipments are not maintained, Alliance LLC implement corrective action to improve delivery performance, including communication of delivery problem information to the customer.

Alliance LLC will have a systematic approach to develop, evaluate, and monitor adherence to establish lead-time requirements. Alliance LLC will also track performance to the customer delivery requirements.

Alliance LLC will ship materials in the conformance with customer requirements, adhering to the up-to-date customer-specified transportation mode, routings, and containers

Product scheduling activity will be order-driven.

A shipment notification system can be performed if specified by the customer. Alliance LLC may fax Advanced Shipment Notifications. ASN's will be verified that they match shipping documents and labels.

Alliance LLC will maintain procedures for identification, collection, indexing, access, filing, storage, maintenance, and disposition (DISPOSAL) of quality records.

Quality records will be maintained to demonstrate conformance to specified requirements and the effective operation of the quality system. Pertinent quality records from a subcontractor will be included.

All quality records will be legible and be stored and retained in such a way that they are readily retrievable in facilities that provide a suitable environment to prevent damage or deterioration and to prevent loss. Retention times of quality records will be established and recorded. When agreed upon through contract, quality records will be available for evaluation by the customer of their representative for an agreed upon period of time.

NOTE: Records may be in the form of various media including: paper, computer discs, computer hard drives, etc.

Record retention for: production part approvals, tooling records, purchase orders, and amendments will be maintained for the length of time that the parts (or family of parts) is active for production and service requirements plus 1 calendar year.

Quality performance records (control charts, inspection and test results) will be maintained for 1 calendar year after the year in which the product was shipped. Records of internal quality system audits and management review will be retained for 3 years. These requirements do not supersede any governmental or customer requirements. Specified retention periods are considered "minimums".

Superseded parts required for new part qualification will have copies of the documents from these parts retained in the NEW part file.

Alliance LLC will maintain documented procedures for planning and implementing internal quality audits to verify whether quality activities and related results comply with planned arrangements, and to determine the effectiveness of the quality system.

Internal quality audits will be scheduled on the basis of importance of the activity to be audited and will be carried out by personnel independent of those having direct responsibility for the activity being audited.

The results of the audit will be recorded (see 4.16) and brought to the attention of the personnel having responsibility for the area being audited. Management personnel responsible for the area will take timely corrective action on the deficiencies found during the audit. Follow-up audit activities will verify and record the implementation and effectiveness of the corrective action plan (see 4.16).

Suitable working environment will be considered as part of the internal audit process.

Alliance LLC will maintain documented procedures for identifying training needs and provide for training of all personnel performing activities affecting quality. Personnel performing specific assigned tasks will be qualified on the basis of appropriate education, training and/or experience, as required. Appropriate records of training will be maintained (see 4.16).

Training is viewed as a strategic issue affecting all of the supplier's personnel. Training effectiveness will be periodically evaluated.

Only where and when applicable, Alliance LLC will establish, maintain documented procedures for performing, verifying, and reporting that the servicing meets the specified requirements. The procedure for communication of information on service concerns to: manufacturing, engineering, and design activities will be established and maintained.

4.20.1 **Identification of Need**

Alliance LLC acknowledges the need for statistical techniques for establishing, controlling, and verifying process capability and product characteristics. Alliance LLC will perform additional inspections of part geometry, and where necessary, magnetic level. This data will be put in statistical form to ensure defect free product is being delivered to the customer. Statistical data may take a variety of forms and may include: averages, minimums, maximums, Cpk, ranges, histograms, etc.

4.20.2 **Procedures**

Alliance LLC will maintain documented procedures to implement and control the application of the statistical techniques identified in 4.20.1.

The selection of appropriate statistical tools for each process will be determined during the advanced quality planning, and will be included in the Control Plan.

Knowledge of basic statistical concepts such as: variation, control (stability), will be understood throughout the organization.

(See Fundamental Statistical Process Control reference manual for additional information).