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Quality Management System

Manual

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1 Introduction

1.1 General Company Information

Limerick Machine Company Inc. is committed to competing profitably and sustainably in the machine/job shop manufacturing industry while providing a workplace that contributes a measurable and desirable impact in quality of life for all its employee's, in all areas of life, while being recognized as the business other businesses most want to be like and want to do business with.

Limerick Machine Company Inc. will accomplish this, in part, by maintaining a workplace that contributes to life satisfaction, fulfillment, fun, community, generosity, and an individual and group sense of belonging.

Limerick Machine Company Inc. manufactures, machines, assembles, and supplies customer specified products, parts, and assemblies in the defense, industrial, and commercial markets.

Our Quality Statement is:

We promise to be the business our customers most want to do business with again, through consistent quality in the processes we perform, the product we deliver, and in all our interactions with them.

2 Quality Management System Scope and Application

The company's quality management system documentation is written, implemented and maintained to meet the requirements of ISO 9001:2008 with a scope of registration for:

The manufacture, machining, assembly, and supply of customer specified parts and assemblies. Limerick Machine Company Inc. is not responsible for design at this time. All product specifications and drawings are provided by customers therefore ISO 9001:2008 section 7.3 is not addressed in this manual.

The quality management system is independently assessed by a third-party to verify that these requirements are satisfied. Copies of the certificates of compliance provided by the Registrar as a result of this assessment will be available in Document Control.

3 Outline of The Company's Quality Management System

The company's quality management system documentation ensures the effective operation and control of all business processes affecting customer satisfaction. The extent of such documentation depends on the complexity of the processes and their interaction as well as the competence of the personnel who perform the given processes. Our quality management system documentation is designed to meet the requirements of ISO 9001:2008 and to be appropriate to our organization's size and type.

The Quality Management System Manual (level 1 documentation) contains not only the Quality Policy, but also all policies relating to the requirements of ISO 9001:2008.

Operating procedures (level 2 documentation) describe how quality management system processes are conducted in compliance with the stated policies and as required by ISO 9001:2008. The majority of the level 2 documentation is maintained on the network.

Work Instructions, specifications and quality records (level 3 documentation) describe in detail how activities affecting quality are performed. The work instructions, drawings, as well as any forms used in conjunction with the quality management system are included in third level documentation. The documents are maintained primarily on the network per 4.2-0002 Document and Data Control Procedure.

The approval, issue and control of this Quality Manual, the operating procedures, the Quality Policy and all quality system documentation are detailed in 4.2-0002 Document and Data Control Procedure.

4 Quality Management System Elements

4.1 Purpose of Quality Management system and Quality System Documentation

The Limerick Machine Company Inc.'s quality management system has been established and documented in accordance with the requirements of ISO 9001:2008 and shall be implemented and maintained continually to improve its effectiveness.

Limerick Machine Company Inc. will:

a) continue to evaluate and determine the needed processes for this quality management system,
b) determine the sequence and interaction of these processes,
c) determine the criteria and methods needed to ensure both the operation and control of these processes are effective,
d) ensure the availability of resources and information necessary to support the operation and monitoring of these processes,
e) monitor, measure where applicable, and analyze these processes, and

f) implement actions necessary to achieve planned results and continual improvement in these processes.

These processes shall be managed in accordance with the requirements of ISO 9001:2008. Control of subcontracted processing is ensured through application of the associated provisions in 7.4-0001 Purchasing/Procurement/Supplier Management Procedure.

4.2 Document Control

4.2.1 General

Limerick Machine Company Inc.'s quality management system documentation includes:

a) documented statements of our quality statement, quality policy, and quality objectives,
b) a quality manual
c) documented procedures and records in accordance with ISO 9001:2008, and
d) documents, including records, determined to be necessary to ensure the effective planning, operation, and control of its processes.

Records are maintained as required by the Record Retention Form.

4.2.2 Quality manual

This Quality Manual contains a description of the scope of the quality management system, including justification for exclusions in Section 2. This manual references procedures that describe the sequence and interaction between the processes of the quality management system. See 4.2-0000B -APPENDIX B - Limerick Machine Quality Manual Interaction of Processes Flow Chart – Initial Release - 03-08-2011

4.2.3 Control of documents

Documents required by the management system and all important information sources are controlled by 4.2-0002 Document and Data Control Procedure.

4.2.4 Control of records

Records established to provide evidence of conformity to requirements and the effective operation of the quality management system are controlled by 4.2-0003 Record Control and Retention Procedure.

5 Management Responsibility

5.1 Management Commitment

Limerick Machine Company Inc.'s top management has established a quality statement, quality policy, quality objectives, and a quality management system by which our company performs its operations to ensure customer satisfaction. They will manage effectively within the intent of these structures to ensure that Limerick Machine Company Inc. meets all customer, statutory, and regulatory requirements, and they will conduct appropriate Management Review Meetings at least once annually to review theses structures for effectiveness, to evaluate and ensure the availability and effectiveness of needed resources, and to evaluate the company's effectiveness in meeting the measures of its quality objectives.

5.2 Customer focus

Limerick Machine Company Inc.'s top management is integrally involved in the evaluation and approval of and the interpretation of customer requirements and ensuring that they are met upon delivery. Customer needs and expectations are evaluated and processed to satisfy customer requirements, with the intent to gain and retain their confidence. Customer requirements are identified, reviewed, and translated into Job Folders under controlled conditions to ensure that the requirements are fully understood and met.

5.3 Quality Policy

Top management has established the following Quality Policy:

Consistent with our commitments and promises (See Sec. 1.1) we (Limerick Machine Company Inc.) will maintain a quality management system that meets requirements of the ISO 9001:2008 Standard;

We will continually improve the effectiveness of our quality management system, and establish and review our quality objectives through periodic management reviews;

This Quality Policy is communicated within Limerick Machine Company through our employee manual, new employee training, prominently posting this policy in the plant, and through continual training programs;

And periodic management reviews ensure that our Quality Policy is reviewed for continuing suitability.

5.4 Planning

5.4.1 Quality Objectives

Quality objectives are derived from the Quality Policy. Quality objectives have been established to continually improve the quality management system as a whole as well as each management process, extending to processes involved with meeting product requirements. Quality objectives are measurable, so that they can be analyzed during Management Review to determine the degree to which they are met. Quality objectives are controlled according to the 4.2-0002 Document and Data Control Procedure.

5.4.2 Quality management system planning

The Management Team will plan the quality management system so as to meet the requirements of paragraph 4.1 and the company quality objectives. Management Review in accordance with 5.6-0001 Management Review Meetings Procedure will be used to ensure such planning and its effectiveness. As part of the regular maintenance of the quality system, proposed modifications to processes and procedures are reviewed during Management Review Meetings to ensure that the requirements of the quality system have been addressed prior to the implementation of any modifications. This review will ensure that when changes or new process are implemented, they are first fully considered to ensure that the integrity of the quality management system is maintained.

5.5 Responsibility, authority and communication

5.5.1 Responsibility and authority

The lines of responsibility and reporting for all personnel are documented on the company organization chart, which appears in Appendix A of this document. In order to ensure that personnel understand their authorities and responsibilities associated with the quality system, authorities and responsibilities are further documented in specific procedures. General authorities and responsibilities are described below:

General
All authorities and responsibilities reside with top management and are delegated to functions and/or individual members of staff within their control as appropriate. All personnel who manage, perform and/or verify work are responsible for the quality of products produced by the company. All such personnel are authorized to identify and record problems relating to products, processes, and the quality system as a whole. All staff and personnel have the responsibility to comply with documented procedures and the direction of management. All personnel have the responsibility to assure that the processes, in which they are working, are in a state of control and that the tasks are completed in a responsible manner. All personnel are also responsible for identifying nonconforming product, marking such product as being nonconforming, notifying management, and controlling further processing until the problem has been corrected. To prevent non-conformities, they may

also initiate, recommend, or provide solutions through designated channels, such as the Corrective and Preventive Action system.

President
The President is responsible for responsible for determining the long-term direction and goals of the company.

General Manager
The General Manager is responsible for the quality assurance, sales and marketing, and production; and is responsible for ensuring compliance with industry, state, local, and federal regulatory requirements; and ensuring that the company has allocated the necessary resources to be in compliance with the quality system. The General Manager allocates resources to assure that employees are trained and that the system is followed as designed and assigned in Management Review Meetings.

Controller
The Controller is responsible for financial administration of the company, human resources, training, and acts as the quality management system Management Representative.

Shop Employees
Shop Employees perform product machining, assembly, inspection, packaging, shipping, staging, and inventory activities.

Internal Auditors
Internal Auditors are responsible for performing independent audits of the quality system to verify that operations are in compliance with documented procedures, and specified quality standards. These individuals are trained and qualified to perform the audits to which they are assigned. They are responsible for preparing for the audits and documenting them in accordance with 5.5-0003 Internal Audit Procedure. These individuals also identify and record problems related to products, processes, and the quality system and recommend solutions.

5.5.2 Management Representative

Irrespective of other duties, the Management Representative (shown on the organizational chart) has the main responsibility and authority for establishing, implementing, and maintaining the quality system and ensuring that it continues to be compliant with the requirements of ISO 9001. The Management Representative is responsible for evaluating the effectiveness of the quality system and reporting on it to executive management and other attendees at scheduled Management Review Meetings, and for making suggestions to improve the system.

The Management Representative serves as the primary liaison to external parties on matters concerning the quality system. The Management Representative also ensures that employees are aware of the importance of meeting customer requirements and how those requirements relate to their work activities. In the absence of the Management Representative, the General Manager will assume these responsibilities.

5.5.3 Internal Communication

Although informal communication is an effective method of transmitting information relating to products and processes, formal mechanisms are in place to document and facilitate such communication. This formal communication method is defined in 5.5-0002 Internal Communication Procedure.

The effectiveness of internal communications and any further formalization of such communications are considered during Management Review Meetings.

5.6 Management Review

5.6.1 General

Management Review Meetings are held to assess and evaluate the quality system to ensure its continued effectiveness and suitability in satisfying the requirements of ISO 9001 and our stated quality policy and objectives. Reviews are carried out according to 5.6-0001 Management Review Meetings Procedure as frequently as necessary, but at least annually. Topics discussed during the meeting and resulting action plans are recorded in Management Review Minutes, which are maintained as quality records in accordance with 4.2-0002 Document and Data Control Procedure.

5.6.2 Review Input

During Management Review Meetings, top management reviews current performance and improvement opportunities arising from the results of internal audits, customer feedback, process performance/trends, product conformance, the status of corrective and preventive actions, and follow-up actions from previous meetings. Other inputs may be the customer satisfaction survey data or employee suggestions.

Management Review also includes quality system planning to ensure that changes in our processes are evaluated and that quality system requirements are addressed prior to their implementation. In addition, the Management Review Meetings serve as a vehicle whereby we may evaluate potential problems and take actions to prevent their occurrences.

5.6.3 Review Output

Outputs from Management Review Meetings include action items regarding the improvement of the quality management system, improvement of the product in relation to customer requirements, and the identification of any needed resources to ensure the continuing satisfaction of our customers.

6 Resource management
6.1 Provision of resources

Resource management at Limerick Machine Company Inc. shall be accomplished through the scope of its stated Quality Policies including its quality management system with the goal of enhancing customer satisfaction by meeting their requirements.

Resources needed to implement and improve quality management system processes, including enhancing customer satisfaction by meeting their requirements, are identified during Management Review Meetings.

6.2 Human Resources
6.2.1 General

Where tasks are performed that may affect the conformity of our products to their requirements, only personnel who are competent to perform those specific tasks on the basis of the appropriate skills, experience, training, and education shall be used.

6.2.2 Competence, training and awareness

Upper management in conjunction with shift leaders shall determine the necessary competence for personnel performing work affecting the conformity of product requirements. Where applicable, management will provide training or other actions to achieve necessary competence. Competence, training, and awareness shall be managed in accordance with 6.2-0001 Training, Evaluation, and Qualification Procedure and shall be evaluated during the Management Review meetings. Management and shift supervision shall ensure that all personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives. Appropriate records of evaluations, skills, experience, training, and education shall be maintained.

6.3 Infrastructure

Management ensures that our facilities are maintained appropriately to achieve conformity of the product, including workspaces, equipment, software, and any supporting services related to facilities maintenance. Such considerations are discussed during Management Review Meetings. Maintenance will be managed per 6.3-0001 Facilities Maintenance and Preventive Maintenance Procedure.

6.4 Work environment

Management ensures that the appropriate human and physical factors of the work environment are considered and provided. Consideration of such factors includes health and safety conditions, work methods, handling methods, and ambient working conditions. Such considerations are also discussed during Management Review Meetings.
A company Safety Manual will be maintained for policies and procedures for workplace safety.
The work environment will be maintained per 6.4.0002 Work Environment Management Procedure.

7 Product realization
7.1 Planning of product realization

Senior management shall ensure that for each product to be produced by the company adequate consideration is given in the following areas:

a) quality objectives and requirements for the product;
b) the need to establish processes and documents, and to provide resources specific for the product;
c) required verification, validation, monitoring, measurement, inspection and test activities specific to the product and the criteria for product acceptance; and
d) records needed to provide evidence that the realization processes and resulting product meet requirements.

This planning and the form of the output of this planning shall be in accordance with 7.1-0001 Sales Order and Quality Planning Procedure.

7.2 Customer –related processes
7.2.1 Determination of requirements related to the product

Customer requirements, including requirements for delivery and post-delivery activities, whether specified or unspecified but necessary for the product's specified or intended use, where known, statutory and regulatory requirements, and any additional requirements are determined under the direction of senior management during the inquiry, quotation, and order acceptance stages of customer contact. These requirements shall be determined and documented in accordance with 7.1-0001 Sales Order and Quality Planning Procedure and 7.5-0002 Engineering Change Order Procedure.

7.2.2 Review of requirements related to the product

Quotations or acceptance of orders shall be reviewed prior to submission to the customer under the direction of senior management. This review to ensure that product requirements are defined, contract or order requirements differing from those previously expressed are resolved, and the company has the ability to meet the defined requirements, shall be in accordance with 7.1-0001 Sales Order and Quality Planning Procedure and 7.5-0002 Engineering Change Order Procedure.

7.2.3 Customer communication

Senior management shall oversee all customer communication in accordance with 7.2-0001 Customer Communication Procedure.

7.3 Design and development

This Section is Not Applicable to Limerick Machine Company, Inc.

7.4 Purchasing

7.4.1 Purchasing process

The company's purchasing processes, including supplier evaluation, selection, and re-evaluation, are controlled according to 7.4-0001 Purchasing/Procurement/Supplier Management Procedure, which ensures that purchased product conforms to the applicable requirements. The type and extent of control exerted over such suppliers and their product, or service, depends on the impact of the purchased product on the subsequent realization process and or the final product.

7.4.2 Purchasing information

Purchasing information shall include all requirements in accordance with 7.4-0001 Purchasing/Procurement/Supplier Management Procedure.

7.4.3 Verification of purchased product

Purchased products are verified upon receipt according to 7.4-W001 Inventory Control, Receiving, Inspection, and Stocking Work Instruction. If our customers require verification of products at our supplier's premises prior to delivery, the arrangements, verification, and release of such products will be recorded on or referenced by the Purchase Order.

7.5 Production and service provision

7.5.1 Control of production and service provision

Production operations are planned and carried out in controlled conditions under the direction of senior management, who are responsible for providing suitable production equipment, a suitable working environment, ensuring that production equipment is appropriately maintained, ensuring monitoring and measuring equipment are available, and product release, delivery, and post-deliveries activities are implemented. Senior management, with the assistance of the production planner, are responsible for providing appropriate information to operators that specifies product characteristics, processing requirements, and monitoring, measuring, and verification criteria, as appropriate. The production planner ensures that work instructions are available to operators as necessary to ensure product conformity. Production operations are conducted in accordance with 7.5-0001 Production Procedure and 7.5-0002 Engineering Change Order Procedure.

7.5.2 Validation of processes for production and service provision

Senior management shall evaluate, as a part of 7.1-0001 Sales Order and Quality Planning Procedure, each product for output that cannot be verified by subsequent monitoring or measurement where, as a consequence, deficiencies become apparent only after the product is in use. For the production of such product senior management shall define a procedure for validation that demonstrates the ability of the processes to achieve the planned results. Such arrangements must include criteria for review and approval of the process, approval of the equipment and qualification of the personnel, definition of the specific methods and procedures to be used, definition of the requirements for records to be kept, and definition of the revalidation of the process.

7.5.3 Identification and Traceability

Identification and traceability shall be maintained for each product per applicable work instructions created in 7.5-0001 Production Procedure and 7.5-0002 Engineering Change Order Procedure.

7.5-0001 Production Procedure shall require the identification of product status with respect to monitoring and measurement requirements throughout the process of product realization.

When traceability is a requirement, unique identification shall be affixed to the product and records maintained in accordance with 7.5-0001 Production Procedure per the applicable work instruction and per 4.2-0003 Record Control and Retention Procedure.

7.5.4 Customer property

Care shall be exercised with customer property while it is under Limerick Machine Company Inc.'s control or being used by its employees. Customer supplied property provided for use or incorporation in product will be identified, verified, protected, and safeguarded. In event customer property is lost, damaged, or otherwise found to be unsuitable for use, it shall be reported to the customer and records shall be maintained. Such required actions for customer property shall be established and documented per 7.1-0001 Sales Order and Quality Planning Procedure, 7.5-0001 Production Procedure and any job travelers and work instructions created.

7.5.5 Preservation of product

Care shall be taken to preserve product during its internal processing and during delivery to its intended destination in order to maintain conformity to product requirements. As applicable and identified during exercise of the 7.1-0001 Sales Order and Quality Planning Procedure and 7.5-0001 Production Procedure, applicable preservation, identification, handling, packaging, storage, and protection shall be performed. This includes any constituent parts of the product.

7.6 Control of measuring and monitoring devices

The quality department under the direction of the General Manager shall determine the methods for monitoring and measuring to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements. Monitoring and measurement processes shall be established per 7.1-0001 Sales Order and Quality Planning Procedure and documented as a part of 7.5-0001 Production Procedure and appropriate work instructions that are consistent with product monitoring and measurement requirements.

Where necessary to ensure valid results, measuring equipment shall in accordance with 7.6-0001 Measurement and Monitoring Device Calibration and Maintenance Procedure:

a) be calibrated or verified, or both, at specific intervals, prior to use, against measurement standards traceable to national measurement standards; or where no standards exist, the basis used shall be recorded (see 4.2.4);
b) be adjusted or readjusted as necessary;
c) have identification to signify its calibration status;
d) be safeguarded against adjustments that would invalidated measurement results;
e) be protected from damage and deterioration during handling, maintenance and storage.

The record of validity of previous measuring results shall be assessed and recorded as necessary if equipment is found not to conform to requirements. Appropriate actions shall be taken on any equipment and product affected through 8.5-0001 Corrective Action Procedure. Such actions shall be recorded.

Records of the results of calibration and verification shall be maintained (see 4.2.4).

8 Measurement, analysis and improvement

8.1 General

Senior management shall implement monitoring, measurement, analysis and improvement processes for demonstrating conformity to product requirements, ensuring conformity to the quality management system, and to continually improve the effectiveness of the quality management system. Appropriate initiatives for implementation of these processes shall be evaluated and planned during the Management Review meeting.

8.2 Monitoring and measurement

8.2.1 Customer satisfaction

Customer satisfaction is measured and evaluated in accordance with 8.2-0001 Customer Satisfaction Evaluation Procedure. Although measurements of such performance indicators may be collected as it becomes available, such data is analyzed annually during Management Review Meetings. Customer satisfaction data is a vital tool in driving improvement of the quality management system.

8.2.2 Internal Audits

The company conducts periodic Internal Audits to determine whether or not the quality management system conforms to the requirements of ISO 9001:2008, our internal procedures, and whether or not the system has been effectively implemented and maintained. Such audits are in accordance with 5.5-0003 Internal Audit Procedure. The procedure defines the requirements for internal auditors, for conducting audits, and for recording the results and reporting them to management.

8.2.3 Monitoring and measurement of processes

Specific, measurable, results shall be included in all processes and procedures, where applicable. Such measurable results shall be selected based on the impact of the results on conformity to product requirements and impact on the effectiveness of the quality management system. When planned results are not within specified limits, corrective action shall be taken in accordance with 8.5-0001 Corrective Action Procedure.

8.2.4 Monitoring and measurement product

Characteristics of product shall be monitored and measured to verify that product requirements are met. Such monitoring and measurement shall be planned and specified at appropriate stages in the product realization process in accordance with 7.1-0001 Sales Order and Quality Planning Procedure and 8.2-0002 Monitoring, Measurement and Release of Product Procedure and specified in applicable work instructions and or job travelers. Evidence of conformity shall be maintained.

Records will indicate the person(s) authorizing release of product for delivery to the customer (see 4.2.4).

The release of product to the customer shall not proceed until the planned monitoring and measurement have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.

8.3 Control of Non-conforming Product

In event that product not conforming to product requirements is discovered it shall be identified and controlled per 8.3-0001 Management of Non-Conforming Product/Material Procedure to prevent its unintended use or delivery. Controls and related responsibilities and authorities for dealing with nonconforming product shall be established in 8.3-0001 Management of Non-Conforming Product/Material Procedure.

This procedure shall establish how to deal with nonconforming product by one or more of the following ways:

a) by taking action to eliminate the detected nonconformity
b) by authorizing its use, release or acceptance under concession by relevant authority and, where applicable, by the customer
c) by taking action to preclude its original intended use or application
d) or by taking action appropriate to the effects, or potential effects, of the nonconformity when nonconforming product is detected after delivery or use has started.

When nonconforming product is corrected it shall be subject to re-verification to demonstrate conformity to product requirements.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained shall be maintained (see 4.2.4).

8.4 Analysis of data

Data demonstrating the suitability and effectiveness of the quality management system as well as that used to evaluate where continual improvement of the quality management system can be made is presented and analyzed during Management Review meetings. Data presented during the meeting includes data resulting from monitoring and measuring product, process and customer satisfaction and other relevant sources.
Information resulting from these analyses includes customer satisfaction levels, conformity of product to requirements, characteristics and trends of processes and products including opportunities for preventive action, and supplier performance.

8.5 Improvement

8.5.1 Continual improvement

Limerick Machine Company Inc. will continually improve the effectiveness of the quality management system through use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review. Continual improvement activities will be reviewed during management review meetings and will be documented on the Corrective or Preventive Action Request form.

8.5.2 Corrective Action

When nonconformities occur, 8.5-0001 Corrective Action Procedure will be initiated to review the nonconformity (including customer complaints), determine the causes of the nonconformity, evaluate the need for action to ensure that nonconformities do not recur, determine and implement action needed, record the results of the action taken, and to review the effectiveness of the corrective action taken.

8.5.3 Preventive Action

When potential nonconformities are identified, 8.5-0002 Preventive Action Procedure will be initiated to determine the potential for nonconformities and their causes, evaluate the need for action to prevent the occurrence of nonconformities, determine and implement action needed, record the results of the action taken, and to review the effectiveness of the preventive action taken.

{End of Manual}
{Added Signatures p. 1—2/14/2011}
{Corrected 7.4-0001 Purchasing Procurement Supplier Management Procedure where it was incorrectly referenced by document number 7.3-0001 and Corrected 7.5-0001 Production Procedure where it was incorrectly referenced by document number 7.4-0001—2/22/2011}
{Rev A – 03/08/2011—Added justification for not being design responsible to par. 2. Updated paragraphs 8.5.2 and 8.5.3 to include references to separate Corrective and Preventive Action procedures. Added reference to 4.2-0000B in par. 4.2.2.}
{Corrected the following procedure names and numbers 4.2-0002 Document and Data Control Procedure from 4.2-0001; 4.2-0003 Appendix B; 4.2-0003 Record Control and Retention added the word Retention; 5.5-0002 removed the word 'Formal'; 7.5-0002 removed the word 'Standard Operating'; changed 7.4-9001 to 7.4-W001;}