

# LAPP HOLDING N.A.

## Corporate QMS EMS Manual

Rev 42 August 19, 2020



# German precision engineering proudly produced in the USA



The LAPP North American headquarters located in Florham Park, NJ houses LAPP USA, LAPP Cable Works, and our latest expansion, LAPP's Center for Competence and Innovation. This Center is assessed by UL as a Client Test Data Program (CTDP) laboratory for Product Testing, R&D, Quality Validation, and New Product Innovation. LAPP Cable Works is our state of the art cable manufacturing plant for ÖLFLEX® brand quality products and custom designed cables. In addition, this facility houses ÖLFLEX® CONNECT which provides complex harnesses, integrated solutions, and custom cable assemblies.



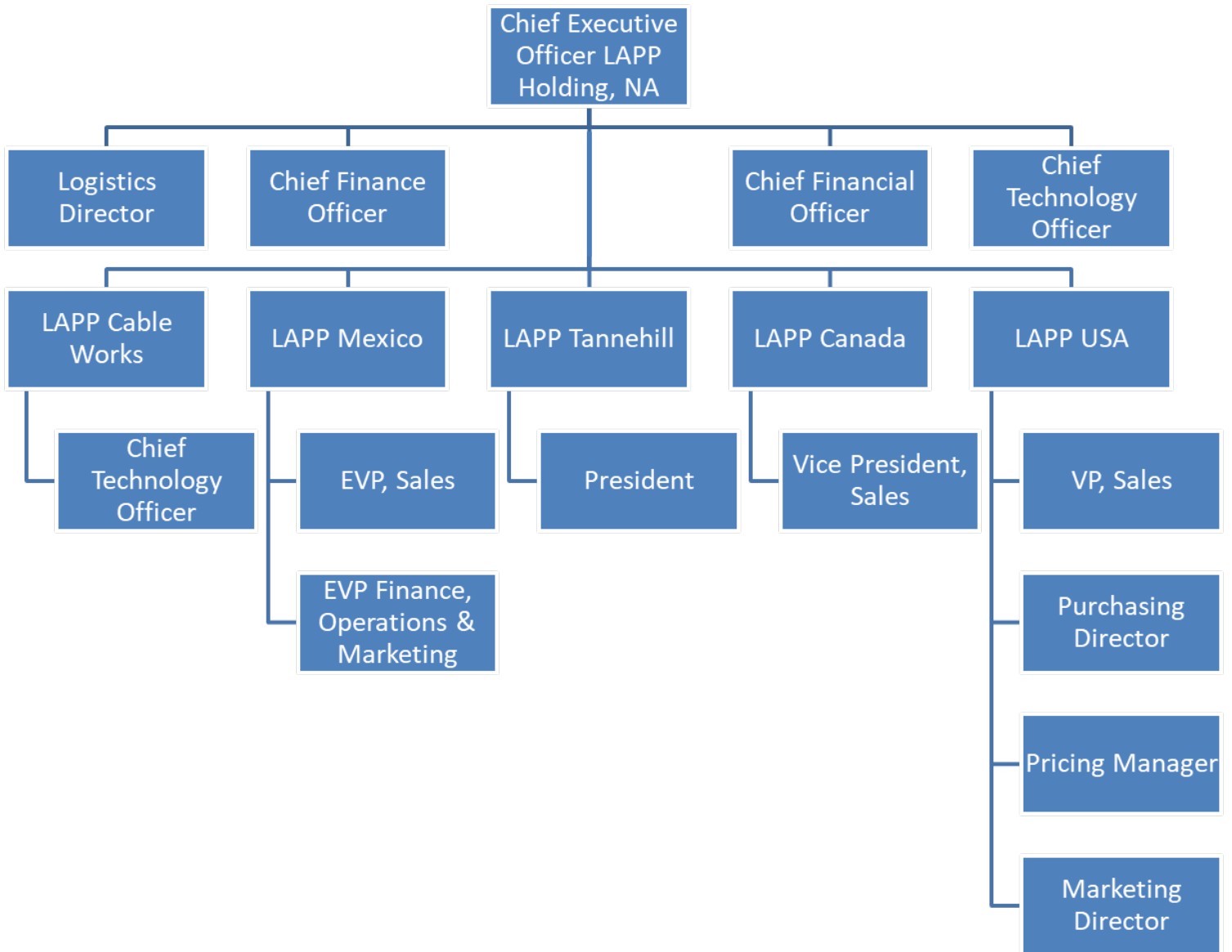
## 4650 people, 21 languages, 1 worldwide family

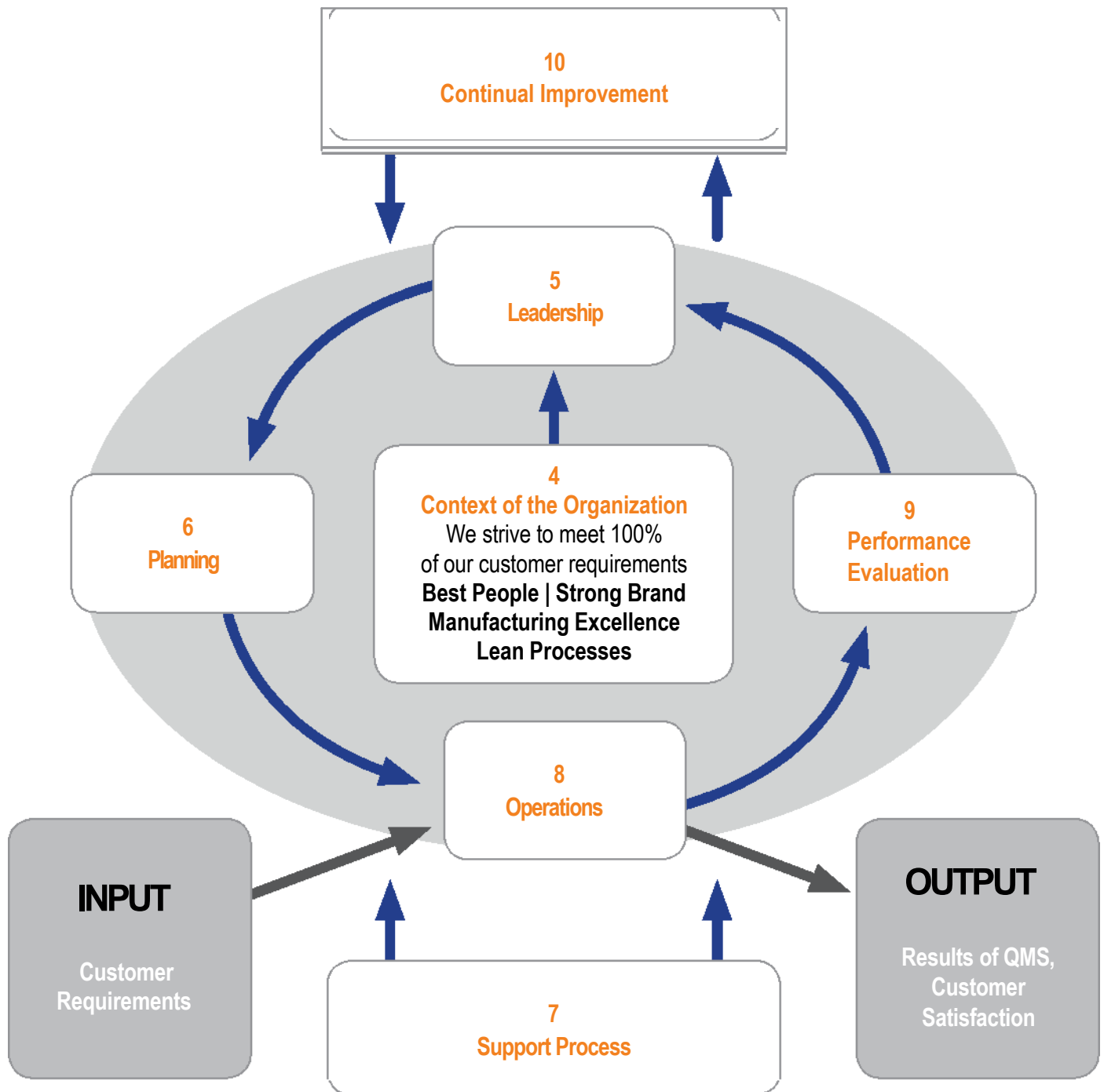
In the late 1950's, Oskar Lapp turned his visionary dream into reality with the invention of the first industrially manufactured control cable, ÖLFLEX®. This was the beginning of his family run and oriented company. LAPP produces innovative cables, connectors, accessories, and engineered solutions as a worldwide market leader. Oskar Lapp's vision continues today through his wife, Ursula Ida, and his sons, Andreas and Siegbert Lapp.

Within 50 years, LAPP has grown to 4,650 employees operating around the globe developing, manufacturing, and selling more than 40,000 products. With 25 manufacturing sites, 51 company-owned sales operations, more than 100 international representations, and our worldwide headquarters in Stuttgart, Germany, the LAPP people are everywhere you need us to be.



Lapp Holding NA  
Subsidiaries & Executive Management





The worldwide Lapp Holding N.A. consists of LAPP USA (formerly Ölflex® Wire & Cable & Contact Electronics), ÖLFLEX® CONNECT, LAPP Cable Works, LAPP Canada and LAPP Mexico, and LAPP Tannehill. If you need further information please contact Darlene McBride, Quality Director, N.A.: 1-800-774-3539, extension 6403.

**LAPP Holding N.A. will strive to meet 100% of our customer requirements.**

Customer  
Oriented



Innovative

Family  
Values

Success  
Oriented

**Lapp stands for:**

- Best People
- Manufacturing Excellence
- Strong Brands
- Lean Processes
- Continually Improving Our Customer Complaints, Customer Service Rate, Supplier Service Rate, and Cost of Quality
- Achieving Category 1A in Lapp's 2007 Audit

### Policy Statement, LAPP NA

LAPP NA will strive to meet 100% of our customer requirements through open communication, innovative ideas, and continual improvements. We will continually seek to improve environmental performance by reducing and preventing identified environmental aspects and their impacts on our operations and design of products. We are committed to:

- **DESIGN, MANUFACTURE AND DISTRIBUTE products that are safe and do not contain any substances that are harmful to health or the environment.**
- Improving KPI by reducing Customer Complaints, Improving CSR, Reducing Supplier incidents and maintaining objectives;
- Complying with all applicable environmental regulations;
- Preventing pollution and reducing consumption of resources through waste management;
- Adopt procurement procedures that monitor environmental impact of products and services;
- Communicate Environmental Policy and Objectives to Staff, Customers, and Community;
- Program of Continual Improvement to review EMS objectives and targets and setting goals to reduce impacts each year.

Jay Lahman  
CEO  
Lapp Holding, N.A.

Keith Myrick  
CTO  
Chief Technology Officer

# Procedures Associated with QMS/EMS

## **POLICY:**

The QMS/EMS is controlled in processes throughout the organization. Procedures are written to describe processes as required. These procedures are electronically stored.

## **PURPOSE:**

Outlines the storage and access of procedures as they relate to policies and processes.

## **RESPONSIBILITIES:**

Managers are responsible for identifying the need to associate a process with a procedure. These processes and procedures are electronically stored and controlled. Flowcharts and process maps referencing standards and procedures will be documented when required.

## **DESCRIPTION:**

Copies of the procedures can be accessed electronically. If the user does not have access to this data, they will be given a controlled hard copy of the procedure.

## **REFERENCE DOCUMENTATION:**

Documented procedures, work instructions, aspect/impact registers, and flowcharts are established by each subsidiary of the Lapp Holding N.A. suitable to their process.

Top management establishes, implements and maintains the environmental quality policy that is appropriate to the purpose of Lapp Holding AG. Environmental objectives and KPI are set and monitored. LAPP is committed to protecting the environment and to fulfilling its compliance obligations.

CIP Plans and Aspect/Impact Registers are set-up as documented information to review the QMS/EMS and insure that continual improvement is achieved.

# Document Control & Revisions

## **POLICY:**

Each subsidiary is committed to establishing and maintaining procedures to control all documents and processes that relates to the requirements of the QMS/EMS through the use of Lotus Notes, Visual Software, AS400, Prelude and SAP or any other accepted software. These documents shall be reviewed and approved for adequacy by authorized personnel prior to issue. The latest issue of all documentation will be available at all locations, as appropriate, where operations essential to the effective functioning of the QMS/EMS are performed. Online versions of obsolete documents are automatically removed from all points of entry. Changes to documents shall be reviewed and approved prior to release by the same functions/organizations that performed the original review and approval unless specifically designated otherwise. The designated organizations shall have access to pertinent background information upon which to base their review and approval.

Procedures will be established to control documents and records other than those stored in the Document Control Database, such as Catalogs, UL Specifications, CSA Specifications and Cable Purchase Specifications, Aspect and Impact Registers, Inspection Records, or customer-supplied products when required.

## **CORPORATE DOCUMENTS POLICY:**

QMS EMS Policy is housed on the LAPP USA Website.

## **PURPOSE:**

To ensure that personnel have up-to-date documentation concerning their product, environmental aspects and impacts that this documentation is controlled, and changes made to documents are communicated to all interested personnel in a timely manner.

## **DESCRIPTION:**

Each N.A. subsidiary document control systems, Lotus Notes, Visual Quality, Prelude, SAP or any other accepted software, provide for the issue, distribution, recall, revision, and change of documents which relate to the quality of products and services.

The following responsibilities for issue and revision of documentation shall remain the same. Quality documentation shall be reviewed revised and reissued when any change has been made per the document control procedure.

# Document Control & Revisions

**The Engineering Department at LAPP USA is responsible for revising specifications.**

All Directors and Managers shall be responsible for documenting their department processes and procedures

## **CORPORATE DIRECTIVE:**

10-609-EN Directory of Preservable Records must be implemented.

## **CONTROLLED DISTRIBUTION:**

Controlled distribution will be used to verify that the most current revision of any document is in use where an activity **having a direct effect on quality or the environment is being performed. The controlled distribution will be from the Document Control Database in System 9000 and Visual Quality.** These databases contain the Master List of all approved procedures and work instructions. All unmarked copies of procedures are considered to be controlled copies.

## **REVISIONS:**

No revisions are allowed to documentation without the approved release of a new document, revised as needed.

**Current revisions of the Organization Chart will be reflected in electronic versions in Lotus Notes.**

## **REFERENCE DOCUMENTATION:**

**Documented procedures, work instructions, and flowcharts are established by each subsidiary of Lapp Holding N.A.**



# Quality Records

## POLICY:

Records will be gathered and stored within the appropriate marked databases. This practice shall provide for uncomplicated recall. Metrics to demonstrate continual improvement will be stored in databases for easy retrieval. Appropriate safeguards shall be maintained to ensure the preservation of these records. A limited number of records will be in hard copy form.

## PURPOSE:

To ensure that the appropriate quality records are gathered, maintained, and disposed of in a controlled manner.

## RESPONSIBILITIES:

Personnel that generate QMS EMS records are responsible for their maintenance and storage. The IT Department is responsible to ensure that electronic records and other computer applications are safeguarded. For these items procedures will define steps to ensure their preservation and accessibility.

## DESCRIPTION:

General Records are generated and maintained to control activities affecting QMS/EMS. Records shall be retained per established record schedules, or as specifically outlined by an entity. Record retention periods outlined by Lapp Holding A.G. Directive 10-609-EN Directory of Preservable Records supersedes all other record retention requirements.

Example of record retention:

RECORD	RETENTION PERIOD*	STORAGE AREA
QMS/EMS	Certification cycle or as specified	Website
Calibration Records	7 years or as specified	Lotus Notes
Contract Review Records	7 years or as specified	SAP
Corrective Actions	7 years or as specified	Lotus Notes
Cable Specifications	Product life plus 5 years or as specified	SAP
Inspection and Testing Records	7 years or by contract or as specified	Lotus Notes
Internal Audit Reports	7 years or as specified	Lotus Notes
List of Approved Suppliers	Continuous or as specified	SAP
Management Review Records	7 years or as specified	Lotus Notes
Manufacturing Documentation	Service life or as specified	SAP
Nonconforming Material Report	7 years or as specified	Lotus Notes
Product Safety Reports	7 years or as specified	SAP
Personnel Training Records	7 years or as specified	Convergence
Product Traceability Records	7 years or as specified	SAP
Quality Manual	Continuous or as specified	Website
Quality Procedures	Obsolescence or revision or as specified	Lotus Notes
Sales Order Information	7 years or by contract or as specified	SAP

\*Lapp Holding A.G. (Parent Company)

## REFERENCE DOCUMENTATION:

Documented procedures, work instructions, flowcharts, aspect impact registers, and records are established by each subsidiary of Lapp Holding N.A. suitable to their process.

# Quality Policy

## **POLICY:**

Each subsidiary of Lapp Holding N.A. will be responsible to define and document their policy statement and objectives. Policy statement will establish, implement and maintain an QMS EMS Policy that is within the defined scope of its QMS EMS. The QMS EMS Policy provides a framework for setting QMS EMS Objectives and includes a commitment to protect the environment and fulfill compliance obligations. Senior Management of Lapp Holding N.A. subsidiaries will ensure that the policy statement is understood, implemented, and maintained at all levels of the Organization. The Policy Statement and objectives are reviewed for effectiveness at each Management Review Meeting. Continual Improvement Plans based on SWOT analysis are formulated by the companies of Lapp Holding N.A. and the results monitored by the Head of Quality in Stuttgart Germany.

## **PURPOSE:**

This policy ensures that the most senior management of the company is seen to take an active role in the QMS/EMS.

## **RESPONSIBILITIES:**

Upper Management is responsible for ensuring the implementation of the QMS/EMS Policy.

## **DESCRIPTION:**

The QMS/EMS Policy for each subsidiary is prominently displayed in various areas throughout the company. The QMS/EMS Policy can be found on the websites of the subsidiaries for all interested parties.

The QMS/EMS is reviewed for adequacy, effectiveness, and relevance by the upper management of the Lapp Holding N.A. subsidiaries along with the President of Lapp Holding N.A.

All employees are made aware of the QMS/EMS during employee orientation. An ISO awareness overview is provided to all employees.

## **REFERENCE DOCUMENTATION:**

Documented procedures, work instructions, and flowcharts are established by each subsidiary of Lapp Holding N.A. suitable to their process.

# Leadership and Commitment

## **POLICY:**

It is the policy of Lapp Holding N.A. to market and distribute products of such quality that will reliably perform their intended functions so that the company is recognized as a quality leader in the industry. All products offered for sale to the company's customers must be consistent with applicable regulations and approvals, prevailing state-of-the art, safe for the environment, and made to contract requirements or advertised specifications.

## **PURPOSE:**

To ensure that our customers and employees, clearly understand that the management of our company is involved and participates in the QMS/EMS.

## **RESPONSIBILITIES:**

The Senior Management of each Lapp Holding N.A. subsidiary is responsible for implementing a QMS/EMS that embraces the philosophy of LAPP Stuttgart while sustaining certification to and meeting requirement of the ISO Standard. The Senior Management of each subsidiary will monitor continual improvement plans to ensure customer satisfaction is achieved and to reach category 1A in 2007S and 2007P internal audits. Management is responsible for establishing and communicating the QMS/EMS policy and objectives and ensuring that the objectives are being met. Policy statements and objectives are reviewed at Management Review Meetings held annually.

## **DESCRIPTION:**

In pursuit of this overall management policy, it is the intent of Lapp Holding N.A. that:

- No product offered to a customer will contain a known condition that is inconsistent with the applicable contract requirements or advertised specifications, and laws and regulations applying to it. Senior Management of each subsidiary will ensure that the necessary resources are available to achieve the customer requirements.
- All product offered to the marketplace will consistently meet or exceed the customer's expectation and thereby contribute positively to the company's product quality reputation and their commitment to meeting environmental compliance requirements.
- Products containing the company trademark must be made to the same exacting product standards and quality requirements regardless of where the material was purchased or manufactured.

## **CUSTOMER SATISFACTION/CUSTOMER FOCUS:**

Customer Satisfaction is defined by the methods to monitor information on customer perception in meeting customer requirements. Customer surveys are sent out to customers at each subsidiary at a minimum of once a year. Feedback is analyzed, charted and reviewed at Management Review Meetings. Continual Improvement Plans are developed to ensure improvement is achieved.

Quality performance indicators, which include customer complaints, cost of quality, supplier service rate, customer service rate, supplier quality incidents and customer returns are entered in the intranet and reported to Lapp Holding AG on a monthly basis. Performance is monitored and measured against performance standards.

# Management Review/Continual Improvement/Operational Controls

## CONTINUAL IMPROVEMENT /MANAGEMENT REVIEW:

Management facilitates the continual improvement process through the use of the QMS EMS policy, objectives, audit results, **surveys, analysis of data, and effectiveness of corrective actions. Management Review Meetings are held at minimum every year** with each Lapp Holding N.A. subsidiary. Aspect/Impacts of the EMS along with Objectives and targets for each subsidiary are maintained in the Quality Matters Database **along with risk identification and audit results and findings. Information is reviewed at Management Review Meetings** along with input requirements of the ISO Standard.

## OPERATIONAL CONTROLS:

- Design of Products (SVHC according to Corporate Directive)
- Procurement of Raw Material (Raw Material Specifications)
- Manufacturing Processes (Procedures and Work Instructions)
- End of Life (Scrap of Product) Obsolescence

## REFERENCE DOCUMENTATION:

**Documented procedures, work instructions, and flowcharts are established by each subsidiary of the Lapp Holding N.A.** suitable to their process.

# Training, Organizational Knowledge

## **POLICY:**

**Training needs will be identified by the Department Manager and listed in the Job Description of each employee. Training needs will be identified and training provided according to established procedures. Needs assessments are performed** annually by the HR department. Process Knowledge and Skills are outlined in Job Descriptions. Training Matrices are maintained to outline knowledge and skills of all employees

## **PURPOSE:**

**To ensure that all functions that can affect the QMS/EMS are staffed by qualified and trained** personnel.

## **RESPONSIBILITIES:**

The Department Manager/Director is responsible for maintaining all functional training requirements and records of training. All training must be validated and documented as being validated. The Department Manager will determine the **core competency of his worker and ensure that requirements to fulfill the position are met. Department Manager/Directors** are responsible for identifying the training requirements for their respective personnel and ensuring that they receive the required training.

## **DESCRIPTION:**

All employees will receive ISO Awareness Training. During the ISO Awareness Orientation, the employee will receive a copy of their job description, procedures, processes and work instructions. Training schedules, records and validation of training will be recorded by the Manager of the Department. Training methods include, but are not limited to: group training, formal classroom, ad hoc programs, apprenticeship, on-the-job training, professional education and experience.

A three-month evaluation checklist will be sent to the Manager of a new hire to ensure that the employee is adapting to job responsibilities outlined in the job description.

Exit interviews will be held with all employees leaving the company.

## **REFERENCE DOCUMENTATION:**

**Documented procedures, work instructions, and flowcharts are established by each subsidiary of the Lapp Holding N.A.** suitable to their process.

# Design & Development

## **POLICY:**

Each Subsidiary having Design and Development Planning define in their approval scope will adhere to the following guidelines. Design and Development Planning defines the stages of design or development processes, design review, verification and validation activities appropriate to each design or development stage, and the responsibilities and authorities for design or development activities.

Corporate Directive 10-670-EN: Stage Gate Process is implemented and complies with all requirements of Product Design.

Interfaces between different groups involved in design or development activities are managed to ensure effective communication and clarity of responsibilities in accordance with the Design Control and Planning Process.

Planning output is updated, as appropriate, as the design or development activities progress.

## **PURPOSE:**

To ensure that the customer requirements as well as regulatory requirements are met.

## **RESPONSIBILITIES:**

Design and development is the responsibility of the LAPP USA Engineering Department in Florham Park, N.J.

## **DESCRIPTION:**

### **DESIGN/DEVELOPMENT INPUTS**

Inputs relating to product requirements are defined and documented. This includes functional and performance requirements, applicable regulatory and legal requirements, applicable information derived from previous or similar designs, and any other requirements essential for the design or development activities. These inputs are reviewed for adequacy by the LAPP USA Engineering Department. Incomplete, ambiguous or conflicting requirements are resolved, as per the procedures. Product Classification Numbers (risk assessment) are assigned by the Product Manager in conjunction with Engineering.

### **DESIGN/DEVELOPMENT OUTPUTS**

The outputs of the design or development process are documented in a manner that enables verification against the design or development inputs. These outputs ensure that the design input requirements are met. They provide appropriate information for production operations. The design or development outputs contain or reference the product acceptance criteria, and define the characteristics of the product that are essential to its safe and proper use.

### **DESIGN/DEVELOPMENT REVIEW**

At suitable stages indicated in the design plan, systematic reviews of design/development activities are conducted as per the Design Control Procedures. The design reviews are conducted to evaluate the ability to fulfill requirements, and to identify problems and propose follow-up actions.

Participants in design/development reviews include representatives of functions concerned with the design/ development stages being reviewed. Records are maintained which reflect the results of the reviews, approvals, and subsequent follow-up actions.

## DESIGN/DEVELOPMENT VERIFICATION

**Design/development verification is performed to ensure the output meets the design/development inputs. Records are maintained which reflect the results of the verification and subsequent follow-up action. Design verification is performed on lab samples, prototypes, and pre-production product history. Design/development verification is performed to ensure the output meets the design/development inputs. Records are maintained which reflect the results of the verification and subsequent follow-up actions. Design verification is performed on prototypes, lab samples, pre-production product history.**

## DESIGN DEVELOPMENT VALIDATION

**Design/development validation is performed to confirm that resulting product is capable of meeting the requirements for the intended use. If applicable, validation is completed prior to delivery or implementation of the product. Where it is impractical to perform full validation prior to delivery, partial validation is performed to the extent applicable per customer requirements. Records are maintained which reflect the results of the validation and subsequent follow-up actions, including regulatory paperwork approvals, i.e., UL/CSA approvals. Design validations performed on production product and approval and validation is made with regulatory agencies prior to first run.**

## CONTROL OF DESIGN/DEVELOPMENT CHANGES

**Design/development changes are identified, documented and controlled. This includes evaluation of the effect of the changes on constituent parts and delivered products. The changes are verified and validated, and approved before implementation. Records are maintained which reflect the results of the review of changes and subsequent follow-up actions.**

## DIRECTIVES OF PARENT COMPANY - LAPP STUTTGART

Print/Packaging/Design Directives have been set by the parent company, Lapp Holding AG. All subsidiaries within Lapp Holding N.A. must comply with Corporate Directives. It is the responsibility of the Engineering Department in **Florham Park, NJ to ensure that the requirements are put in the technical specifications.**

LH10-670-EN Stage Gate Process is implemented for design at Lapp Holding N.A.

## REFERENCE DOCUMENTATION:

**Documented procedures, work instructions, and flowcharts are established by each subsidiary of the Lapp Holding N.A. suitable to their process.**

# Purchasing

## **POLICY:**

Purchased material and services from suppliers and outsource suppliers must conform to requirements established by the company. Compliance to the EMS/QMS requirements by supplier is mandated. Supplier selection, process control, receiving inspection, and testing are methods available to provide purchase material control.

## **PURPOSE:**

To ensure product purchased by the company meets the requirements of the product being manufactured or serviced, or **outsource, that the supplier is qualified and remains qualified, and that contractual requirements made with customers are fulfilled. The requirements of the EMS/QMS are satisfied by the service provider/supplier.**

## **RESPONSIBILITIES:**

- Purchasing - All vendors must be approved
- Approved vendor lists to be established
- Initial inspection reports for all new items
- Vendor to be monitored

## **DESCRIPTION:**

### **DOMESTIC SUPPLIERS - PREREQUISITE:**

**A Certificate of Insurance must be on file for all domestic vendors before an order is generated.**

### **ASSESSMENT OF SUPPLIERS:**

- One or more of the following evaluation methods may be used:
  - Surveys
  - Past History
  - **Qualifications - Capacity and Capability Analysis - Regulatory approved items**
  - Vendor Ratings
  - **Regulatory/third party approval of a QMS/EMS certified to ISO/QS Standard**
  - Approval by Parent Company
  - References from past users
  - Accredited supplier (ISO/NIST)
  - Audit 2007S or 2007P
  - Corporate Directive - addressing purchasing, approval of new suppliers, product ownership must be implemented



# Internal Audits

## POLICY:

A strategic system of planned and periodic audits shall be implemented to verify compliance with all aspects of the QMS/EMS.. Remote audits are conducted by Lapp Holding N.A. auditors on behalf of LAPP Canada and Atlanta Distribution Center. A full system audit to the QMS/EMS elements of the ISO standard is performed on an annual basis.

## PURPOSE:

To ensure that the requirements of the ISO Standard are met and that the QMS/EMS is functioning correctly, identifying problems, and implementing corrective action to ensure continual improvement through all processes. When establishing the internal audit program, the subsidiary will take into consideration the environmental importance of the process concerned.

## RESPONSIBILITIES:

The Quality Manager/Lead is responsible to ensure that internal audits occur as scheduled, results are posted in the Quality Matters Database

## DESCRIPTION:

A full system audit on the QMS/EMS is conducted annually to determine compliance to ISO9001, ISO14001 and Corporate Directives of **Lapp Holding AG**. The audits assess whether the quality system elements **are effectively implemented and maintained. The procedures define the planning and scheduling of the audit program.** Consideration is given through the audit planning, as to the status and importance of the activities and areas to be audited, as well as the results of previous audits.

## OVERVIEW/CONTINUAL IMPROVEMENT - ANALYSIS OF DATA:

**All functions having a direct effect on quality or the environment shall be audited at least once each calendar year or more frequently as** required by the importance or the need of the activity; i.e., change of management, previous audit results. Audits will be used to monitor customer satisfaction by ensuring corrective actions are addressed.

Customer or certifying agency audits, when documented, shall serve to supplement information to management for overall QMS/EMS and product performance.

**Documented objective evidence shall be part of the audit results. Concerns, findings, and corrective action for audit items** shall be reviewed.

**Audit personnel shall be qualified by education and/or experience. All internal auditors trained in-house will have training** noted in their Employee Training Records.

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# Control of Nonconforming Product

## **POLICY:**

Procedures will be established and maintained that prevent the inadvertent use of nonconforming material or product.

## **PURPOSE:**

To ensure that nonconforming product is identified and prevented from inadvertent use until its disposition is determined.

## **RESPONSIBILITIES:**

The Quality Analyst/Inspector is responsible for segregating nonconforming product or identifying a person to perform segregation of defective product.

## **DESCRIPTION:**

The Quality Analyst/Inspector operates the nonconforming material system with the participation of the Warehouse/ Purchasing and the customer if contractually required. Nonconforming material is defined as parts or material that do not meet drawing specifications, or purchase requirements. Substantial nonconformities are conditions that are unsafe costly, frequent, or contractual nonconformance. Nonconforming material must be identified and segregated by means of either a rejection tag or nonconforming material report.

## **CONTROL OF NONCONFORMING PRODUCT:**

All N.A. affiliates will ensure that product which does not conform to product requirements is identified and place in a well-defined Nonconforming Area. Records of the nonconformities and any action taken shall be maintained.

## **DIRECTIVE FROM GERMANY - Corporate Directive Quality Alert, No. 10-646-EN:**

A Quality Alert (Potential Major Issue Report) Document is available upon request. Contact Darlene McBride: [dmcbride@lappusa.com](mailto:dmcbride@lappusa.com)

**A Quality Alert must be completed and forwarded to the Head of Quality if one or more of the following situations occur:**

- Production stops due to Quality Issues effecting operating results  $\geq$  €100,000
- Production stop at external customer (potential claim > €100,000)
- Safety risk for persons (product liability)

Corporate Directive 10-646-EN must be implemented in all Lapp Holding N.A. subsidiaries. The form is to be sent by the Quality Director, N.A. immediately (within 24 hours) from onset of the problem. The form will be located on the Intranet under Quality > Quality Standards.

## **10-643-EN PROBLEM-SOLVING METHODS FOR QUALITY ISSUES:**

This directive outlines the problem solving methods to be employed with customer complaints. Document available upon request. Contact Darlene McBride: [dmcbride@lappusa.com](mailto:dmcbride@lappusa.com)

## **REFERENCE DOCUMENTATION:**

Documented procedures, work instructions, and flowcharts are established by each subsidiary of the Lapp Holding N.A. suitable to their process.

# Analysis of Data

## **POLICY:**

**Through Quality Planning we define, plan and implement the measurement and monitoring activities needed to assure conformity and to continually improve the effectiveness of the quality management system.**

## **PURPOSE:**

This applies for the measurement and monitoring activities for all processes.

## **RESPONSIBILITIES:**

**Procedures define the collection and analysis of appropriate data to determine the suitability and effectiveness of the quality management system and to continually improve its effectiveness. Surveys are sent at a minimum of once a year to determine external and internal customer satisfaction.**

## **DESCRIPTION:**

### **PRODUCT/VENDOR PERFORMANCE:**

Vendor/product performance is monitored through inspection and testing procedures. Vendor performance is maintained and discussed during Management Review.

### **STATISTICAL METHODS:**

Test result data recorded from the products during in-process inspection will be used to identify trends that would **affect quality. If a trend is found, it will be traced to the specific process that is causing the trend and the process will be reviewed for efficiency.**

## **REFERENCE DOCUMENTATION:**

**Documented procedures, work instructions, and flowcharts are established by each subsidiary of the Lapp Holding N.A. suitable to their process.**

# Corrective Action & Continual Improvement

## POLICY:

A planned and documented program for corrective action will be established to ensure that potential or actual conditions **which adversely affect quality are promptly identified. Customer complaints and other reports of nonconformance must be resolved.** The causes of nonconformity will be determined, and positive steps taken to prevent recurrence.

## PURPOSE:

To ensure that a system of correction action exists by which continuous improvement to products, services, and processes can be accomplished.

## RESPONSIBILITIES:

All employees are responsible for implementation of corrective action. Quality Assurance will oversee the activities and report as required to senior management on the conditions as they exist in the corrective action system at Management Review Meetings.

## DESCRIPTION:

All employees have the obligation to identify and report actual or potential nonconformities. Corrective Action Requests (CARs) may be initiated by any employee or customer. Discrepant material (product) or processes may be judged to be minor or a substantial nonconformity.

## MINOR NONCONFORMITY:

A minor nonconformity is a quality characteristic (i.e., workmanship and cosmetic) that may be accepted through **the waiver process. These nonconformities do not affect form, fit, function, safety, or reliability. Remedial corrective action for minor nonconformities must be prompt and effective in returning the material or process to within the specifications of the applicable drawing(s) or product quality standards.**

## RECORD MAINTENANCE:

**All corrective action requests must as a final outcome, identify the cause of the problem and verify that the solution is effective. The originator of a corrective action has the responsibility to approve the resolution. The corrective action is reviewed during internal audits to ensure that an effective resolution has been obtained.**

## REPETITIVE COMPLAINT/INSPECTION FAILURE:

If a complaint or inspection failure is repetitive for the same problem, the following steps must be taken:

**1. Root cause analysis performed. Verify solution is effective.**

0. Tightened inspection for repetitive failures. Inspection Plan - 100%.

Continue 100% inspection on next six lots. If no failures are detected, product is placed on VIP Program (dock-to-stock). If a failure, is noted 100% inspection on the next six lots.

**CAR:**

Effectiveness of corrective actions to demonstrate conformity of the process/product must be carried out during internal audits, process/product validation, and incoming inspection of product.

8D reports are completed on product failure to ensure desired outcomes are achieved.

Continual Improvement Indicators measuring Customer Service Rate, Supplier Service Rate, Supplier Incidents, Poor Cost of Quality and Customer Rejection Rates are plotted each month. Quarterly meetings are held to review service performance. Data is mapped and monitored to identify areas that are not meeting objectives. Corrective actions are issued to increase awareness and to create a plan to improve performance and validate effectiveness.

**CIP - SWOT ANALYSIS:**

A continual improvement plan is submitted to Headquarters Lapp Holding AG at the beginning of each fiscal year. CIP includes indicators to monitor performance and aims to enhance customer satisfaction through the effective application of the system. Indicators including process outputs are recorded for tracking continual improvement; they are: Customer Complaints, Customer Service Rate, Supplier Service Rate and Customer Returns. A SWOT Analysis is performed to identify strengths and weaknesses and to incorporate those weaknesses into the plan for continual improvement of the system

**REFERENCE DOCUMENTATION:**

Documented procedures, work instructions, and flowcharts are established by each subsidiary of the Lapp Holding N.A. suitable to their process.

# ÖLFLEX®

Power & Control Cables

# SKINTOP®

Cable Glands

# SILVYN®

Conduit

# ETHERLINE®

Industrial Ethernet

# EPIC®

Connectors

# UNITRONIC®

Data Cables

# FLEXIMARK®

Marking Systems

# HITRONIC®

Fiber Optic Cables

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[www.lappcanada.com](http://www.lappcanada.com)

## LAPP Mexico

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