

# Morris Manufacturing

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# Supplier Quality Manual



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# Supplier Quality Manual

## **INTRODUCTION**

### **Greetings from Morris Manufacturing & Sales Corporation**

Morris Manufacturing & Sales Corp. specializes in providing precision machined parts.

In today's manufacturing environment, products that is found to be non-conforming at receiving or during production, causes serious disruptions of the production and shipping schedules, resulting in high production costs. Even the best receiving inspection program cannot detect all defective material. Morris Manufacturing & Sales Corp. requires suppliers to control the quality of material shipped to Morris Manufacturing & Sales Corp. so that we do not need to inspect the product when it is received.

This manual describes Morris Manufacturing & Sales Corp.'s expectations for its suppliers to ensure that purchased material meets Morris Manufacturing & Sales Corp.'s requirements.

This information applies to all suppliers who have an interest in doing business with Morris Manufacturing & Sales Corp. It also applies to Morris Manufacturing & Sales Corp.'s out-sourced partners or subsidiaries.

### **Quality Policy**

The top management of Morris Manufacturing and Sales Corporation is committed to complying with customer requirements and continuous improvement of the effectiveness of the quality management system in all areas of the organization. We are also committed to providing defect-free products and on-time delivery. Customer satisfaction is the company's main priority. The spirit of our quality policy is captured in our quality policy slogan that is openly displayed, communicated, and understood throughout the organization.

## ***Quality Policy Slogan***

The team at Morris Manufacturing is committed to the highest standard of quality, meeting or exceeding our customers' requirements and expectations through a total commitment to continuous improvement activities.

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## *Quality Management System Requirements*

### Quality Management System

Each Morris Manufacturing & Sales Corp. supplier is required to maintain an effective quality management system, preferably one that conforms to ISO/IATF 16949:2016 Quality Management Systems – Requirements. In addition, the supplier must meet all other requirements of this manual.

### Quality Manual and Procedures

The supplier, as requested, will furnish Morris Manufacturing & Sales Corp. with a copy of the supplier's quality manual and supporting procedures. This includes detailed documents and work instructions specific to the production of material for Morris Manufacturing & Sales Corp.

### Control of Sub-tier Suppliers

Suppliers are responsible for the quality of materials and components provided by their sub-tier suppliers and sub-contractors. Morris Manufacturing & Sales Corp. suppliers must impose controls on their sub-tier suppliers and provide quality results and documentation comparable to the controls applied to suppliers by Morris Manufacturing & Sales Corp. The extent of the controls may vary, depending on the nature and complexity of the product and processes, but should normally include:

Evaluation and qualification of sub-tier supplier facilities

Controls to ensure that raw materials meet Morris Manufacturing's requirements

Controls to ensure that the sub-tier suppliers of components used are those approved by Morris Manufacturing & Sales Corp., where applicable.

Ensure that sub-tier suppliers have an ESD control program that meets or exceeds the needs of Morris Manufacturing & Sales Corp., if the parts or materials are ESD sensitive

Par qualification including first article inspection and process capability studies, as applicable.

Control of drawings/revisions

Corrective action and preventative action programs

A continuous quality improvement program

Where appropriate, Morris Manufacturing & Sales Corp. may specify the sub-tier suppliers that may be used, evaluated, and qualified by the sub-tier supplier's facilities and assist the supplier in controlling the sub-tier supplier. Typically, this occurs when the sub-tier supplier is an essential component of the supply chain process. *Morris Manufacturing & Sales Corp reserves the right to evaluate the quality system and records of such sub-tier suppliers as necessary. In the event of Morris Manufacturing & Sales Corp's., involvement it does not absolve suppliers of the ultimate responsibility for the quality performance of their sub-tier suppliers.*

## Supplier Qualification Process

All suppliers of production materials to Morris Manufacturing & Sales Corp. must be qualified suppliers. The extent of the qualification process is dependent upon the criticalness of the product purchased and other factors determined by Morris Manufacturing & Sales Corp. The qualification process in its most complete form consists of two parts:

A quality management system self-assessment completed by the supplier, using the Morris Manufacturing & Sales Corp. supplier assessment survey form. This is returned, along with the supplier's quality manual and documentation for review by Morris Manufacturing & Sales Corp.

An on-site assessment by Morris Manufacturing & Sales Corp. personnel or their authorized agents.



Morris Manufacturing & Sales Corp. periodically re-evaluates suppliers through the use of quality performance data and/or on-site assessments.

## New Supplier Self-Assessment

When a new supplier is being considered, they are sent a quality assurance supplier audit form, F7.4.3-1. The supplier completes the self-assessment and returns it along with a copy of their quality manual and supporting documents. Morris Manufacturing & Sales Corp. will review the quality manual, procedures, and survey to determine if the documented quality system meets Morris Manufacturing & Sales Corporations requirements.

## New Supplier Questionnaire

In the early stages of the supplier selection process, potential suppliers are sent a new customer questionnaire F7.4.3.1-5. This questionnaire solicits general information about the company such as location(s), size, capabilities, and financial stability, as well as detailed questions regarding the company's quality management system and quality history.

## On-Site Assessment

For suppliers of critical components, an on-site assessment of the supplier's facility is performed. The on-site assessment includes three components:

A quality assessment to determine whether the supplier's quality management system is in place and functioning effectively.

A business assessment to determine whether the supplier has financial resources, production capacity, and other business resources needed to fulfill Morris Manufacturing & Sales Corp.'s production needs.

A technology assessment to determine whether the supplier has the needed technical resources, including production and inspection equipment, facilities, engineering resources, etc.

If the assessment team determines that the supplier meets Morris Manufacturing & Sales

Corp.'s requirements, Morris Manufacturing & Sales Corp. qualifies the supplier to bid on new business and supply production materials.

## Periodic Re-Evaluation

Morris Manufacturing & Sales Corp. periodically re-evaluates current production suppliers using quality performance data and/or on-site assessments. If requested, the supplier shall make their facility available for on-site process verification by Morris Manufacturing & Sales Corp. personnel, with reasonable notice.

## Part Qualification

In some cases, Morris Manufacturing & Sales Corp. personnel may wish to be present during the initial production run. This will allow Morris Manufacturing & Sales Corp. to validate and verify the process before any product is shipped.

## First Article Requirements Checklist

The supplier is responsible for submitting all first article data requested by Morris Manufacturing & Sales Corp. on the first article requirements checklist. Morris Manufacturing & Sales Corp. and the supplier will agree on the number of the samples to be checked and submitted with the first article data. Where possible, all first article

documents should be submitted to the supplier quality engineer in electronic format (preferably Adobe Acrobat or Microsoft Office).

For each new or changed part, Morris Manufacturing & Sales Corp. sends the supplier a First Article Requirements Checklist, listing the steps and information that must be submitted for qualification of the component or assembly for production. The checklist items selected are based on the type of component or assembly to be supplied.

## Dimensional Inspection Report

Morris Manufacturing & Sales Corp. notifies the supplier of the quantity of parts to be inspected, typically five from each tool or cavity. The supplier inspects or tests each sample for all dimensions, drawing notes, and specification requirements listed on the current revision of the Morris Manufacturing & Sales Corp. drawing and/or specification. The supplier records the results on the first article report form. The supplier must balloon a copy of Morris Manufacturing & Sales Corp.'s drawing and/or specification to correspond with the supplier's results.

The dimensional inspection report must include the specification number, specified requirements, and the inspection and test results. A simple statement that the material meets the requirements is not acceptable. Each report must be traceable to the supplier's material, through lot/heat/coil/batch numbers or equivalent and must be signed by the organization that performed the testing. For any requirements that the supplier does not have the equipment to inspect or test, the supplier must obtain reports from their sub-supplier or other test agency.

Parts inspected for the dimensional inspection report are randomly selected from a production run of parts. The minimum quantity for the production run is agreed upon between the supplier and Morris Manufacturing & Sales Corp. The parts must be produced under volume-production conditions, including material, machines, tooling, processing parameters, cycle times, etc. Any exceptions to the volume-production

conditions must be approved in writing by Morris Manufacturing & Sales Corp., and included in the data package submitted to Morris Manufacturing & Sales Corp.

## Material Certification/Test Report

When requested, the supplier must provide a material certification/test report. This report must include the specification number, specified material and/or physical requirements, and the inspection/test results. A simple statement that the material meets the requirements is not acceptable. Each report must be traceable to the supplier's material and must be signed by the organization that performed the testing.

## Gage Repeatability & Reproducibility (R&R) Studies

For those characteristics specified by Morris Manufacturing & Sales Corp., the supplier must perform gage R&R studies using procedures described in Measurement System Analysis published by AIAG. Morris Manufacturing & Sales Corp. must approve R&R values greater than 10 percent of the tolerance.

Normally for variable gages, three different operators measure ten samples three times each. For attribute gages, the Attribute Gage Study (long method) is required. Morris Manufacturing & Sales Corp. must approve any alternative methods. For Automated Gaging Systems the test should be 1 operator testing 3 times.

## Gage Correlation Studies

For characteristics specified by Morris Manufacturing & Sales Corp., the supplier must perform a gage correlation study. This consists of the supplier identifying, measuring and recording a specified number of production parts. The supplier then sends the parts to Morris Manufacturing & Sales Corp. for measurement. Morris Manufacturing & Sales Corp. compares their measurements with the supplier's measurements to determine the correlation between the gages.

## Process Capability Studies

Process Capability ( $C_{pk}$ ) is a comparison of the inherent variability of a process output to specification limits *under statistically stable conditions*. There are several techniques for assessing the capability of processes. Morris Manufacturing & Sales Corp. suppliers must use methods defined in Statistical Process Control (SPC) published by AIAG for determining process capability and process performance, unless an alternate method is approved in writing by Morris Manufacturing & Sales Corp.

A  $C_{pk}$  of at least 1.33 is required for Morris Manufacturing & Sales Corp.'s critical dimensions.

When required to submit process capability data to Morris Manufacturing & Sales Corp., the supplier must calculate process capability using the following method, unless an alternate method is approved by Morris Manufacturing & Sales Corp.:

$$C_p = \text{Process capability ignoring Process centering} = \frac{USL - LSL}{6 \hat{\sigma}}$$

$$C_{pk} = \text{Process capability Including centering} = \text{the minimum of either: } \frac{USL - \text{Avg.}}{3 \hat{\sigma}} \text{ Or } \frac{\text{Avg.} - LSL}{3 \hat{\sigma}}$$

USL = Upper Specification Limit

LSL = Lower Specification Limit

=

Avg. = Process Average =  $\bar{X}$

$$\hat{\sigma} = \text{Estimated Standard Deviation} = \frac{\hat{\sigma} = R}{d_2}$$

—

R = Average Range

$d_2$  = Constant from statistical tables

For unlimited tolerances, the same logic is employed, except that only the specified side of the tolerance is used to calculate  $C_{pk}$ . When X & R charts are used for capability studies, the subgroups must contain pieces taken consecutively from the process and the subgroups must be arranged sequentially in the order they were produced.

## Failure Modes and Effects Analysis (FMEA)

When requested, the supplier must perform a Process Failure Modes and Effects Analysis (PFMEA) and submit it for approval. If a copy cannot be submitted a live review will do. For parts and assemblies that are designed by the supplier, the supplier should also perform a Design Failure Modes and Effects Analysis (DFMEA) review with Morris Manufacturing. The PFMEA considers all reasonably predictable potential failure modes of each process. Based on the potential seriousness and likelihood of the problem, the supplier develops manufacturing controls. The PFMEA should be a living document, and should be updated when process changes occur, or when defective material is produced. PFMEA methods and examples can be found in Potential Failure Mode and Effects Analysis published by AIAG.

## Control Plan

When requested, the supplier must develop a control plan, and submit it for approval. The control plan is a detailed description of the supplier's proposed processing steps required to produce the part, and the controls that are put into place to control the quality at each step. The control plan must include all in-house processing, external processing, inspection, packaging, and shipping. Suppliers may use their own format. Measuring devices and fixtures designed and built to check Morris Manufacturing & Sales Corp. parts must be identified with a gage number, drawing, and must be listed on the control plan.

The control plan must include all critical characteristics. Where detailed instructions are required, the supplier details them in a work instruction, or equivalent, which must be listed in the control plan. Inspection methods, sample sizes, and sampling frequencies should be based on the process capabilities, seriousness, and likelihood of potential nonconformance's and process stability. Critical characteristics that do not meet Morris Manufacturing & Sales Corp.'s process capability requirements must be inspected 100% unless Morris Manufacturing & Sales Corp. approves alternate control methods in writing.

## Material Safety Data Sheets (MSDS)

As applicable, Material Safety Data Sheets (MSDS) must be provided during the first article process.

## Agency Approvals and Compatibility Reports

The supplier is responsible for providing the proper agency approval test reports per Morris Manufacturing & Sales Corp. requirements. Examples are UL, CE, FCC, TUV, etc. The supplier is also responsible for agency test reports from their sub-supplier or other outside test agencies.

## Packaging & Labeling

The supplier must adequately plan for packaging of material shipped to Morris Manufacturing & Sales Corp. The supplier will provide a documented packaging plan including container size, number of parts per container, packaging configuration, etc. Packaging will be designed to provide protection from any damage that may occur.

Packaging, labeling, and shipping materials must comply with the requirements of common carriers to secure the least transportation costs.

## Traceability

The supplier must plan for traceability of components. The supplier will provide a written plan specifying how components will be marked with serial or lot numbers and date codes if required, or how containers will be identified with lot numbers or date codes if component marking is not required. The plan will also include sizes of lots or batches. Where possible, batch sizes should be minimized to aid in containment should quality problems be found.

### ***Manufacturing Control***

## Process Control

Morris Manufacturing & Sales Corp. suppliers are required to control all manufacturing processes in accordance with the control plan, which is approved during part qualification.

## Statistical Process Control

Where specified in the control plan, the supplier is required to apply effective statistical process controls. Effective controls must include:  
The control chart displays control limits that are correctly calculated (specification limits may not be used as control limits).



The control chart is at the process area, visible to the operator, or persons who are responsible for controlling the process.

For each out-of-control condition, actions are taken to bring the process back into control. Actions taken to bring the process back under control are recorded.

Product produced during any out-of-control condition is sorted, scrapped, reworked or disposition completed through the supplier's material review process.

## Process Performance Requirements

Process Performance ( $P_{pk}$ ) is the comparison of the actual process variation to the specification limits. When required to submit process performance data to Morris Manufacturing & Sales Corp. the supplier must report process performance using the following method:

**Critical Characteristics:** A  $P_{pk}$  at least 1.33 is required. Any critical characteristic failing to meet the minimum requirement requires a containment plan and an improvement plan.

**Other Characteristics:** A  $P_{pk}$  of at least 1.00 is required. The supplier is not required to calculate and report process performance for non-critical characteristics, unless requested by Morris Manufacturing & Sales Corp. When specified by Morris Manufacturing & Sales Corp., other characteristics failing to meet the minimum requirement also requires a containment and improvement plan.

$P_{pk}$  = the minimum of either  $\frac{USL - Avg.}{3s}$  or  $\frac{Avg. - LSL}{3s}$

USL = Upper Specification Limit

LSL = Lower Specification Limit

=

Avg. = Process Average =  $\bar{X}$

S = Estimated Standard Deviation  $S = \frac{\sum_{i=1}^n (X_i - \bar{X})^2}{n - 1}$

$N$  = Total number of parts inspected (n-1)

For unilateral tolerances, the same logic is employed, except that only the side of the tolerance that is specified is used in to calculate  $P_{pk}$ .

## Process Improvement

Out-of-control or unstable processes (which have assignable causes) and processes that do not meet the minimum  $C_{pk}/P_{pk}$  requirements must be identified and corrected. The supplier must also improve processes with low yield rates.

## Lot Control

A lot consists of products of one part number and revision that are made at the same time, under the same processing conditions, from the same lot of raw materials. The primary purpose for identifying lots is to determine the scope of actions that must be taken when problems arise during further manufacturing or with customers. Each container or material shipped to Morris Manufacturing & Sales Corp. must be identified with the supplier's lot number. Inspection records must be traceable to lot numbers.

The following are typical conditions that result in a change of lot numbers:

- a. Change of part number or revision
- b. Change of part number or revision of components
- c. Interruption of continuous production (typically for more than a few hours)
- d. Repairs or modifications to the tooling or equipment.
- e. Tooling changes (other than minor adjustments or replacement of consumable tooling)
- f. Change to a different lot of raw materials

g. Process changes

## Traceability

Traceability ties the finished product back to the components used in the product. When traceability is specified, the traceability marking should be effective down to the individual component, i.e., lot code, batch, or serial number should be identifiable throughout Morris Manufacturing & Sales Corp's processes.

## Workmanship

When workmanship standards are not referenced on Morris Manufacturing & Sales Corp. drawings or specifications, the supplier is expected to follow industry-accepted standards (e.g. ANSI, IPC). If in doubt, consult with Morris Manufacturing & Sales Corp. for clarification.

## Safety

At no time should any customer, or person at a Morris Manufacturing & Sales Corp. facility, be exposed to hazardous material or situations that are not inherent in a components structure. Residues, films, out gassing products and packaging materials should comply with OSHA (Occupational Safety & Health Association) standards. For items with inherent hazards, safety notices must be clearly observable. As applicable, MSDS sheets must be provided during the first article process.

## Maintenance

The supplier must maintain all facilities, manufacturing machines, tools, measuring devices, and other equipment in such a manner that the supplier can support Morris Manufacturing & Sales Corp's production requirements, and the quality of parts manufactured for Morris Manufacturing & Sales Corp. is not degraded in any way.

### *Drawing/Changes*

## Drawing and Change Control

The supplier must have a documented system for assuring that the latest Morris Manufacturing & Sales Corp. drawings are in effect at their facility. The supplier's quality management system must contain a documented procedure that describes the method used for the receipt, review, distribution, and implementation of all changes to drawings and specifications. In addition, the procedure must address control of obsolete drawings and specifications. A documented procedure should also detail the method used to contain new or modified parts until approved by the customer.

## Process, Changes, Engineering Changes

Suppliers must have systems in place to control changes to drawings, specifications, processes, or produced parts. Systems should be capable of handling changes being requested by the customer and changes requested by the supplier.

Note: The first article approval process is directed at a given part number for a specified revision level produced in a specific area of the manufacturer's facility. Suppliers may not make any changes in their process, location, material, or to the part without written

approval from Morris Manufacturing & Sales Corp. The supplier must formally request a process change on all Morris Manufacturing & Sales Corp. components.

## Supplier Process Change Request (SPCR)

A Supplier Process Change Request (SPCR) is used to request a change to a released part, process, drawing, or specification. Morris Manufacturing & Sales Corp. encourages SPCR's for process improvement with the stipulation that before an SPCR is submitted, the supplier thoroughly reviews their FMEA and control plan to assure that all process-related issues have been addressed and resolved.

The originator of an SPCR will include the following information:

- Drawing or part number
- Drawing or part title
- Description of problem or recommended change
- Reason for change of "rationale"
- Proposed effective date

The supplier submits the SPCR with the revised FMEA and control plan (if applicable) to Morris Manufacturing & Sales Corp. for evaluation of the following.

- Supplier-demonstrated process capability and stability
- Comparison to First Article data
- Industry standards
- Supplier process engineering capabilities
- Supplier's adherence to control plan

After Morris Manufacturing & Sales Corp. has completed the review, and concurs with the supplier, Morris Manufacturing & Sales Corp. will notify the supplier as to the final disposition of the SPCR and part submittal requirements and dates.

**When monitoring is required, the appropriate markings must be identified on the lots etc. for a specified time frame as decided jointly with Morris Manufacturing & Sales Corp. and the supplier.**

## Supplier Deviation Request

A supplier is never permitted to knowingly ship products that deviates from the print, specification limits, or design intent without written authorization from Morris Manufacturing & Sales Corp. If such a condition exists, the supplier may request Morris Manufacturing & Sales Corp. to allow shipment of the product. This is accomplished by initiating a Deviation Request.

If directed by Morris Manufacturing & Sales Corp., the supplier must send samples of non-conforming items to Morris Manufacturing & Sales Corp. for evaluation. The cost of any testing required to determine the acceptability of the product will be charged to the supplier. Morris Manufacturing & Sales Corp. will determine the item's acceptability and what corrective actions (if any) are required beyond the deviation. If approved, Morris Manufacturing & Sales Corp. will send a written deviation approval to the supplier.

The deviation is only intended to be an interim action and **is not** to be construed as an engineering change. The supplier must begin work immediately to correct the condition in question. This must be accomplished within the time frame stated on the deviation. Failure to comply with the mutually agreed upon closure date for the deviation may result in the supplier's rating being affected.

In all cases, the supplier must fully contain all products suspected of being non-conforming at their facility. In addition, the supplier may be required to sort any suspected product at Morris Manufacturing & Sales Corp.

**Any parts sent to Morris Manufacturing & Sales Corp. that have been approved on a deviation request must be clearly identified on the box, container, or other packaging**

**method with the appropriate markings decided jointly by Morris Manufacturing & Sales Corp. and the supplier.**

## ***Packaging & Labeling***

### **Packaging**

Each supplier must adequately plan for packaging. Morris Manufacturing & Sales Corp. encourages supplier-initiated packaging improvements. Suppliers will provide packaging that provides protection from any damage that may occur. Packaging, labeling, and shipping materials must comply with the requirements of common carriers in a manner to secure the lowest transportation costs.

Contamination is a serious concern to Morris Manufacturing & Sales Corp. Packaging must protect the components from contamination, including fibers from the packaging materials.

Expendable materials and packaging must be legal and safe for standard “light industry” disposal. The preferred maximum weight of manually handled packs is 40 lbs. The maximum acceptable weight is 45 pounds, unless approved by Morris Manufacturing & Sales Corp. in writing.

Whenever possible, only one part number and one supplier lot is to be packaged in a shipping container. When more than one part number or lot number is packaged in a shipping container, each part number and/or lot number must be separately packaged (i.e. bags or boxes) inside the container, with each labeled as to the contents.

## Labeling

Each shipping container or inside package must contain the following information:

Morris Manufacturing & Sales Corp. part number (if no Morris Manufacturing & Sales Corp. number exists, supplier part number is used)

Quantity

Supplier's Name

Purchase Order Number

Lot identification (if required)



## ***Corrective Action System***

Morris Manufacturing & Sales Corp. requires suppliers to utilize a closed-loop corrective action system when problems are encountered in their manufacturing facility, or after a nonconforming product has been shipped to Morris Manufacturing & Sales Corp.

## **Corrective Action Process Approach**

The corrective action system utilized should be like the process outlined below. The focus should be on identifying the root cause(s) of the problem and taking action to prevent its recurrence.

- Use a team approach
- Describe the problem
- Contain the problem
- Identify and verify root causes(s)
- Implement permanent corrective actions
- Verify corrective action effectiveness
- Close the corrective action

## **Supplier Corrective Action**

Morris Manufacturing & Sales Corp. issues a Vendor Corrective Action Request (CAR) to a supplier when non-conforming parts are found at incoming inspection, production, test, or by a Morris Manufacturing & Sales Corp. customer. They can also be issued because of a supplier audit. The supplier is required to respond by returning the CAR back to Morris Manufacturing & Sales Corp. with the "Team Response" fields completed. The following provides a brief outline of the CAR procedure that suppliers to Morris Manufacturing & Sales Corp. should comply with:

The interim action must clearly define the containment actions at the supplier's facility to assure that no nonconforming product is shipped to Morris Manufacturing & Sales Corp. If the suspect product has already been shipped, the supplier must address all suspect stock in transit and any stock at Morris Manufacturing & Sales Corp. The supplier will assist Morris Manufacturing & Sales Corp. in identifying customer risk by identifying all suspect lot numbers and associated quantities involved.

Within 7 days after the original notification, the supplier must report the results of the supplier's investigation into the root cause of the problem.

Within 21 days from the initial notification date, the supplier must submit the corrective action to be taken to prevent recurrence of the problem, and the implementation date. Actions such as "train the operator" "discipline the operator" or "increase inspection," are typically not acceptable corrective actions.

The supplier is required to keep Morris Manufacturing & Sales Corp. informed of progress towards implementing the corrective action. When corrective action implementation is complete, the supplier and Morris Manufacturing & Sales Corp. will verify that the corrective action is effective in preventing the problem's recurrence.

## Ship-to-Use (STU)

Morris Manufacturing & Sales Corp. utilizes a Ship-to-Use policy to reduce the problems associated with receiving nonconforming products from suppliers, while minimizing incoming inspection and speeding up the process of moving product to production.

Suppliers with all parts on STU and high ongoing quality performance are preferred suppliers. Preferred Suppliers are given the first opportunity to quote for new business and are given preference for increased volumes when consolidating suppliers for multiple-source items.

Morris Manufacturing & Sales Corp. administers the STU program on a part-by-part basis. STU applies to all material and components purchased for use in released products at Morris Manufacturing & Sales Corp. It does not include pre-released parts, samples, prototypes, pilot runs, first articles for new tooling, and other low volume applications. STU material will be moved directly into production, by passing incoming inspection.

## Ship-to-Use Requirements

The supplier attains Ship-to-Use status with each proposed part by meeting the following criteria:

For non-critical parts, the part achieves STU status upon first article qualifications, assuming all other requirements are met as detailed below.

For critical parts, the supplier must be qualified through an on-site quality management system assessment. At Morris Manufacturing & Sales Corporation's discretion, the formal on-site assessment may be waived with a fully completed supplier self-assessment.

For critical parts, the most recent three lots received must have passed all incoming inspections

The parts must have no outstanding vendor corrective action requests (CARs) for issues affecting form, fit, function, reliability, or customer acceptance.

The 3-lot requirement may be waived for a critical part if any of the following conditions are met, provided it is a mutual agreement and is reached between Morris Manufacturing & Sales Corp. and the supplier:

The part was modified from an existing part on STU by a part number or revision change, and the changes did not affect form, fit, or function.

The part has less than 3 lots received within 6 months.

For products shipped as complete, sealed, point-of-sale items from the supplier, Morris Manufacturing & Sales Corp. will determine if that product may be placed as STU immediately. This decision is based on the supplier test and manufacturing process/capability and availability of equipment to do meaningful testing.

If a supplier produces a part in more than one facility, each facility must qualify individually for STU.

## Ship-to-Use Suspension

The supplier is placed on STU suspension when any of the following conditions occur:

A lot fails an incoming inspection audit.

A supplier-caused CAR initiated for an issue affecting form, fit, function, reliability, or customer acceptance.

The supplier fails a quality management system assessment.

A control plan audit shows the supplier is not following their approved control plan. If STU is suspended, Morris Manufacturing & Sales Corp. personnel investigate and determine whether the suspension extends to other part numbers/tools furnished by that supplier, issues a vendor corrective action request (CAR) if one has not already been issued, and works with the supplier to correct the problem.

When the supplier's STU status is returned to good standing, Morris Manufacturing & Sales Corp. notifies the supplier of the change in status.

If a supplier does not implement an effective corrective action, or if the supplier is put on suspension repeatedly, Morris Manufacturing & Sales Corp. determines whether the supplier's STU status should be discontinued. This decision may also include a decision to move the business to an alternate supplier.

## Supplier Monitoring

Morris Manufacturing & Sales Corp. continually monitors its suppliers to ensure they continue to meet Morris Manufacturing & Sales Corp.'s requirements, and to ensure that the supplier continues to ship acceptable parts. This may consist of:

A quality management system surveillance audit at the supplier's facility

An on-site audit of the supplier's control plan

A random incoming inspection audit of a batch of product

Source inspection of product at the supplier's facility

Nth Article Inspection

Review of supplier-furnished data packages

A supplier progress review meeting conducted periodically at the supplier's site or Morris Manufacturing & Sales Corp. to review supplier performance and progress

## Supplier Audits

Periodically, Morris Manufacturing & Sales Corp. may audit the supplier's quality management system. The supplier must make their facility available for on-site process verification by Morris Manufacturing & Sales Corp. personnel at any time, with reasonable notice. This may be a full or abbreviated documentation and on-site audit. The purpose is to evaluate any changes that may have occurred in the supplier's quality management system, and to assess the supplier's continuing commitment to quality improvement.

Periodically, Morris Manufacturing & Sales Corp. may also audit the supplier's continuing conformance to the control plan approved in the first article process.

## Inspection Audit

Morris Manufacturing & Sales Corp. expects its suppliers to furnish material that conforms to all requirements, and that does not need to be inspected when Morris Manufacturing & Sales Corp. receives it. Material that has not achieved Ship-to-Use status or that is on STU suspension is inspected on a lot-by-lot basis. Morris Manufacturing & Sales Corp. uses C=0 sampling plan (see example in Appendix 1) that rejects the entire lot when a single non-conforming part is found in the sample. At Morris Manufacturing & Sales Corp.'s discretion, to meet production requirements, 100% sorting may be done as necessary at the supplier's expense.

Morris Manufacturing & Sales Corp. may inspect product at the supplier's facility to detect potential problems prior to shipment. Morris Manufacturing & Sales Corp. may also inspect product at sub-tier suppliers.

## N<sup>th</sup> Article Inspection

The supplier must perform an annual Nth Article inspection of each part to verify continuing conformance of the part to the specification. This is also required if an engineering change affecting form, fit, or function occurs. The Nth Article requirement is not applicable to non-critical parts.

For all sub-components, the manufacturing supplier is responsible for ensuring that the components that make up each assembly are qualified and monitored through the supplier's own part qualification system.

At the discretion of Morris Manufacturing & Sales Corp., the Nth Article can be postponed beyond or required prior to, the annual expiration. Considerations such as component volume, program life cycle and supplier/part performance are used in the decision to pull in or extend the requirement for Nth Article.

## Supplier-Furnished Lot Documentation

Morris Manufacturing & Sales Corp. may require the supplier to furnish inspection, test, process performance, or other quality data with each shipment to ensure that the product meets Morris Manufacturing & Sales Corp.'s requirements. When data submission is required, the data must accompany each shipment, or be e-mailed or faxed to Morris Manufacturing & Sales Corp. at the same time the lot is shipped. All documentation must be clearly identified with Morris Manufacturing & Sales Corp.'s part number, and the supplier's lot number.

When specified by Morris Manufacturing & Sales Corp., the supplier must submit monthly data packages. Data packages typically consist of copies of control charts and process capability calculations for specified characteristics.

Once the supplier has completed two consecutive quarters of data submissions, the supplier may request elimination of the data submission if records show that the characteristic consistently satisfies Morris Manufacturing & Sales Corp.'s requirements for process stability and process performance, and if the characteristic has caused no problems in Morris Manufacturing & Sales Corp.'s production. Morris Manufacturing & Sales Corp. will notify the supplier in writing if the data submission may be discontinued.

## ***Conflict-Free Material***

### **Conflict-Free Material Regulations**

Pursuant to

- i. Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”), the U.S. Securities and Exchange Commission (“SEC”) has adopted rules imposing SEC reporting requirements upon publicly-traded companies whose products contain metals derived from minerals defined as “conflict minerals.”
- ii. EU Regulation 2017/821 of the European Parliament and of the Council of the European Union laying down supply chain due diligence obligations for European Union importers of tin, tantalum and tungsten, their ores and gold (“conflict minerals”) originating from conflict-affected and high-risk areas.

Conflict minerals include wolframite (tungsten), cassiterite (tin), coltan (tantalum), their ores and gold.

Morris Manufacturing may use these minerals in producing certain products and applications for customers within the aerospace, automotive, oil and gas and other industries.

Morris Manufacturing takes seriously the global concern that minerals mined from some sources within the Democratic Republic of the Congo, its adjoining countries, or other conflict-affected and high-risk areas (the “conflict region”), that benefit armed groups, may be making their way into the general industry supply chain, and that profits from this could potentially contribute to human rights violations.



## Commitment to Responsible Sourcing

Due to the complexities of the mining process and because Morris Manufacturing does not purchase minerals directly from smelters or mines, Morris Manufacturing must rely on sourcing information provided by our suppliers. Morris Manufacturing is committed to socially responsible sourcing and supports the humanitarian goals of the above-mentioned regulations, the Responsible Minerals Initiative and the development of regulations and processes for suppliers to determine whether materials within their supply chain are sourced from the conflict region. Guided by the Organization for Economic Cooperation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas, Morris Manufacturing has adopted this Conflict Materials Supply Policy and has implemented a supply chain due diligence framework that includes policies similar to those set forth in the Responsible Business Alliance (formerly the Electronics Industry Citizenship Coalition (EICC)) Code of Conduct.

## Supplier Expectations

Morris Manufacturing's Supplier Code of Conduct outlines our goal of developing long-term and mutually beneficial supplier relationships based on strong performance standards. It requires that our suppliers engage in dealings based on fairness, honesty, lawfulness, safety, environmental stewardship and social consciousness equivalent to the values and standards set forth in Morris Manufacturing's Code of Business Integrity which includes a commitment to human rights. In addition, Morris Manufacturing expects its suppliers or potential suppliers of conflict minerals or other materials, and their sub-suppliers, to only source materials from environmentally and socially responsible sources.

In furtherance of our goal of utilizing “conflict-free” materials , Morris Manufacturing has developed procedures that communicate our expectation that suppliers of conflict minerals (1) will implement due diligence processes to determine the origin of raw materials within their supply chain, and (2) will not supply to Morris Manufacturing any conflict minerals known to come from the conflict region that are not either (a) from a compliant smelter or refiner, or (b) from recycled or scrap sources. Suppliers of conflict minerals must submit written evidence of due diligence documentation to Morris Manufacturing which may include completing the standardized Responsible Minerals Initiative Conflict Minerals Reporting Template (CMRT) or other certifications. If Morris Manufacturing identifies a reasonable risk that a supplier, or any of its affiliates or sub suppliers, is (i) sourcing conflict minerals from the conflict region and such conflict minerals are not from a compliant smelter or refiner or from recycled or scrap sources, and/or (ii) engaged in conduct inconsistent with Morris Manufacturing’s Code of Business Integrity and our commitment to human rights, we will reassess our business relationship with such supplier.

Conformance with this policy is a requirement of all suppliers, or potential suppliers, of conflict minerals.

Morris Manufacturing continues to communicate this policy to our suppliers and encourages them to adopt similar policies with respect to conflict minerals and due diligence frameworks for their supply chains.

## *(HSE) Health Safety and Environment Policy*

### **HSE Policy**

At Morris Manufacturing we are driven to ensure no harm comes from our actions to people, the environment, or the communities in which we operate.

### **Our Values and Commitments**

- Health, safety, and environmental responsibility are core values at Morris Manufacturing and integral in all that we do.
- Compliance with applicable laws, regulations, and Morris Manufacturing policies is a license to operate for our employees, contractors, suppliers, and partners.
- HSE ownership through visible, demonstrated leadership across the organization.
- Collaboration with our employees, the industry, and other professional associations to continuously improve HSE performance.

### **Our HSE Principles**

At Morris Manufacturing we believe that:

1. All incidents and injuries are preventable.
2. HSE is a line management accountability.
3. We are responsible for our own safety and that of others around us.
4. Our employees and contractors are obliged to stop a job or refuse to perform it if it cannot be performed safely.
5. All HSE incidents must be reported, and learnings taken from them.
6. Our commitment to and efforts in HSE will yield results.
7. Acting safely is a condition of our employment and supplier contracts.

We expect our employees, contractors, and partners to embrace these principles and reflect them in every aspect of work they perform.

This policy is integral to Morris Manufacturing's business strategy. Executive leadership is committed to the full implementation of this HSE policy.

## Revisions

- A. Initial Release 2/23/11 S.B.**
- B. Revised TS to ISO/IATF preference 2/10/21 D. J.**
- C. Added Conflict-Free Material Policy, Added HSE Policy, Removed the EDS requirement from the manual 1/4/2023 DJ**