



SUPPLIER STANDARD GUIDE

(Document #FO-PUR-01)

110 Prospect Way
Osceola, Wisconsin 54020

Telephone: (715) 294-2121
FAX: (715) 294-3727

Internet: <http://www.northwire.com>

SUPPLIER STANDARD GUIDE

(Document #FO-PUR-01)

Date Approved: 12/02/2019

Revision Level: 07

Approved By:

Tim Shilts
V.P. Quality, Engineering & Operations

TABLE OF CONTENTS

Table of Contents.....	3-4
1. Overview	
1.1 Introduction	5
1.2 Purpose.....	5
1.3 Terms and Conditions.....	6
1.4 NWI Vision, Mission and Quality Policies.....	6
2. Code of Conduct	
2.1 Code of Conduct	7
2.2 Application to Sub-contractors.....	7-8
2.3 Right of Access by Organization.....	8
3. Quality System Expectation	
3.1 Purchasing	8
3.2 Product Qualification	8-10
3.4 Intellectual Property	10
3.5 Regulatory Requirements.....	10-11
3.6 Purchasing Information.....	11
3.7 Verification of Purchased Product.....	11
3.8 Control of Production and Service	11
3.9 Identification and Traceability	11-12
3.10 NWI Property.....	12
3.11 Preservation of Product	12
3.12 Gauge Selection.....	12
3.13 Calibration	12
4. Measurement Analysis and Improvement	
4.1 General.....	12-13
4.2 Customer Satisfaction.....	13
4.3 Internal Audit.....	13
4.4 Product Audit	13
4.5 Monitoring and Measurement of Processes	13
4.6 Monitoring and Measurement of Product	14
4.7 Analysis of Data.....	14

5. Improvement	
5.1 Continual Improvement.....	14
5.2 Corrective Action.....	14-15
5.3 Preventive Action.....	16
6. Supplier Approval Process	16
7. Recovery Fees	17- 18
8. Supplier Evaluation	18
9. Supplier Request for Change	18-19
10. Nonconforming Material Management	
10.1 Control of Nonconforming Product.....	19
10.2 Control of Reworked Product.....	19
10.3 Customer Information	19
10.4 Product/Material Deviation Form.....	20
11. Nonconforming Material Notification	20
12. Improvement Tools (DMAIC Tool Set).....	21

This area was intentionally left blank

1. Overview

1.1 Introduction

Welcome to Northwire, Inc.

Founded in 1972, NORTHWIRE-NWI Lab360 is a privately held contract manufacturer reaching an international market. We are your premier partner for the design and manufacture of custom technical wire and cable, retractile cords, cable assemblies, connectors, harnesses and contract engineering for diverse applications in life sciences, energy, aerospace/defense, industrial and more. NWI Lab360 leverages professional certifications in Six Sigma®, Lean, Project Management and the American Society for Quality to optimize design, manufacturing and quality to achieve the highest quality and shortest lead times for any volume.

1.2 Purpose

The purpose of this manual is to communicate Northwire-NWI Lab360's requirements and expectations to suppliers. NWI's commitment to continuous improvement and drive to move into new markets is enabled by suppliers that are motivated and committed to providing the highest level of service and quality.

This guide is divided into 12 sections:

1. Overview
2. Code of Conduct
3. Quality Systems Requirements
4. Measurement Analysis
5. Improvement
6. Supplier Approval Process
7. Recovery Fees (supplier chargeback)
8. Supplier Evaluation
9. Supplier Request for Change
10. Nonconforming Material Management
11. Nonconforming Material Notification
12. Improvement Tools

All revisions or additions to the Supplier Standards Guide will be posted to NWI's website, www.northwire.com. It will be the responsibility of the supplier to ensure that they have the most current revision of this guide. The guide will be audited during the NWI quality audit.

This guide is not intended to replace any material specification requirements, Quality procedures or the Terms and Conditions incorporated in contracts.

1.3 Terms and Conditions

Refer to NWI's Terms and Conditions found at NWI's website at <https://www.northwire.com/resources/supplier-documents>

1.4 NWI Vision, Mission and Quality Policy

For reference we have placed NWI's Mission, Vision and Quality policy in this guide. The intent is for our suppliers to understand them and support NWI in executing them.



VISION
Innovative solutions
exceeding the demands of
your changing world



© 2010 - 2012 Northwire, Inc. All rights reserved. Rev 9-19-12



MISSION
Our organization and operation
platforms will align with *our*
customers' voice empowering
enterprise growth



© 2010 - 2012 Northwire, Inc. All rights reserved. Rev 9-19-12



NORTHWIRE
A LEMO Group Company

Quality Policy

Northwire is committed to being an industry leading designer and manufacturer of interconnectivity solutions. We are dedicated to meeting customer requirements by continuously improving our quality management system and investing in our workforce.

2. Code of Conduct

2.1 Code of Conduct

NWI's Supplier Code of Conduct helps us to select business partners who follow workplace standards and business practices that are consistent with our company's values. These requirements are applicable to all suppliers of NWI.

- 2.1.1 General Principle:** Suppliers' plants shall operate in full compliance with the laws of their respective countries and with all other applicable laws, rules and regulations.
- 2.1.2 Environment:** Suppliers' plants must comply with all applicable environmental laws and regulations.
- 2.1.3 Child Labor:** Suppliers shall employ only workers who meet the applicable minimum legal age requirement. Suppliers must also comply with all other applicable child labor laws.
- 2.1.4 Forced Labor:** Suppliers shall not use any indentured or forced labor, slavery or servitude.
- 2.1.5 Wages and Hours:** Suppliers' plants shall set working hours, wages and over-time pay in compliance with all applicable laws. Workers shall be paid at least the minimum legal wage or a wage that meets local industry standards, whichever is greater.
- 2.1.6 Discrimination:** Suppliers shall employ workers on the basis of their ability to do the job, not on the basis of their personal characteristics or beliefs (including race, color, gender, nationality, religion, age, maternity or marital status).
- 2.1.7 Gift and Gratuity Policy:** The offering or acceptance of kickbacks, bribes and other illegal payments subverts the very essence of competition and erodes the moral fiber of those involved. These include gratuities (i.e. anything of value) offered to governmental officials or employees. Such activities are not condoned and will not be tolerated. Also, NWI prohibits the offer or acceptance of gifts or gratuities that the recipient likely would consider to be of substantial value (>\$25). Any supplier that violates this Gift and Gratuity Policy risks immediate loss of all existing and future NWI business.

2.2 Application to Sub-Contractors

This code also applies to any sub-contractor(s) to the supplier, providing goods or services to the supplier. The supplier is fully responsible for ensuring compliance by any such sub-contractor(s) as if it were the supplier itself. NWI reserves the right to audit the supplier's sub-

contractors for compliance to NWI's Supplier Code of Conduct and the supplier will accommodate NWI's audit as required.

2.3 Right of Access by Organization

The supplier will allow NWI, their customer and regulatory authorities, any of its representatives or agent's to include US Government representatives access to the applicable areas of all its facilities at any level of the supply chain and all relevant records associated with the products and services provided to NWI. The supplier and NWI will establish a mutually agreeable date and time for access. However, risks to NWI business may require immediate access to the products, services and associated records and supplier will accommodate NWI's access as required.

If the supplier does not comply with this Code of Supplier Conduct, NWI requires that the supplier implement a corrective action plan to cure the non-compliance within a specified time period (furnished to NWI in writing). If the supplier fails to meet the corrective action commitment, NWI may terminate the business relationship, including suspending placement of future orders and potentially terminating current production. NWI reserves the right to hold the supplier responsible for reasonable costs of investigating non-compliance.

3. Quality System Expectation

Suppliers to NWI are expected to have processes and procedures in alignment with ISO 9001, AS9100 and/or ISO 13485. The following sections outline some areas of emphasis.

3.1 Purchasing

3.1.1 Purchasing Process: As a primary supplier to NWI, the supplier is responsible for the quality of the products and services provided by their supply chain. The requirements of this document shall be extended to the supplier's supply chain. A supplier shall have a documented system to properly select suppliers with the capability to meet this standard and other applicable NWI Standards.

At times, it may be appropriate for the supplier to have their supplier(s) participate in NWI initiated Design, Process, and Assembly Reviews and other quality activities.

3.2 Product Qualification

This section defines the generic requirements for production part qualification and approval. The purpose is to determine if all Northwire design and specification requirements are properly understood by the Supplier and that the manufacturing processes have the capability to

consistently meet these requirements. In all instances where a product is manufactured to a new design, for a new system, or for a new application, it is important that Supplier and Northwire allocate responsibility for assuring that all performance, endurance, maintenance, safety and warning requirements are met. It is preferred that this allocation of responsibility be in writing.

3.2.1 First Article Inspection: At a minimum, a First Article Inspection (FAI) is required to initially qualify a part/process for Supplier approval, unless the PPAP process (below) is used instead. Furthermore, a new FAI may be requested if there is an extended gap of time since last production. The FAI requires that all features and characteristics on the design specification and control plan be inspected and verified prior to production. Actual measured values shall be recorded as opposed to general statements of conformance or other notations simply indicating acceptance.

For First Article Inspection guidance, see AIAG PPAP Manual (Appendix C, D, & E) – Production Part Approval Process (available from www.aiag.org). When submitting a First Article Sample to Northwire, the supplier must affix the pink Northwire SAMPLE label on each package being shipped. These SAMPLE labels can be acquired from Northwire's Supply Chain Department. The Supplier must submit the completed First Article Inspection form to Northwire Purchasing. When the SAMPLES are approved, a copy of the signed FAI Inspection Report will be sent to the supplier for their records.

For Northwire Aerospace products, a new FAI is required if there is a twenty-four (24) month gap of time since last production and excess stock from last production cannot be used to satisfy the FAI requirement. A delta FAI is required when new revision of the part number is released. Unless otherwise required by contract, all FAI's shall be documented in accordance with AS9102.

3.2.3 Production Part Approval Process (PPAP): When required by the Northwire contract, the Supplier shall submit to Northwire a more comprehensive Production Part Approval Process (PPAP) qualification package. The Supplier is responsible for obtaining the latest revision of the applicable AIAG core tool reference manuals and forms.

The AIAG Core Tools Manuals are:

- Advanced Product Quality Planning (APQP) and Control Plan
- Production Part Approval Process (PPAP)
- Potential Failure Mode and Effects Analysis (FMEA)
- Measurement Systems Analysis (MSA)
- Statistical Process Control (SPC)

When PPAP is specified on the Northwire contract, the Supplier shall submit a "Level 3" PPAP package to the Northwire Buyer which consists of the following items, unless otherwise directed. See AIAG PPAP Manual, Table 4.2, for complete list of submission requirements for each level of PPAP.

3.4 Intellectual Property

The supplier shall own the patent or copyright that allows it to lawfully manufacture the product, or utilize the manufacturing process, NWI desires to purchase. The supplier shall be properly licensed by the holder of the patent or copyright to produce or utilize the manufacturing process. The supplier shall have documentation to substantiate that it owns the requisite Intellectual Property rights, or that it is properly licensed to use the requisite Intellectual Property Rights.

The Intellectual Property rights are effective and legally enforceable in the country where the supplier will produce the product or utilize the manufacturing process, and the documentation to substantiate that its Intellectual Property Rights are effective in the country where it will produce or utilize the manufacturing process. The duration of the requisite Intellectual Property shall be sufficient to cover the term of the proposed supply agreement. The supplier shall identify any third party Intellectual Property Rights that could interfere with the proposed supply agreement.

3.5 Regulatory Requirements

- 3.5.1 Reach and RoHS** - The end users of our products are demanding compliance to the latest and ever changing RoHS and REACH standards. The products and materials we purchase from you must be compliant to the current requirements. You must certify that the products/materials you ship to us are in compliance. We will periodically audit the materials you ship to us and we request that you also audit your suppliers for conformance. The introduction of new/additional restricted and banned substances is ever changing and we expect our suppliers to remain current to the latest RoHS and REACH requirements.
- 3.5.2 California Prop 65** - Materials, products or components must be compliant with California Proposition 65 requirements and limits.
- 3.5.3 Conflict Minerals** – Seller will disclose whether Goods contain any conflict minerals as defined under Section 1502 of the U.S. Dodd-Frank Act and its implementing regulations (collectively the "Conflict Minerals Law") that are necessary to the production or functionality of the Goods ("Conflict Minerals"). If goods contain any Conflict Minerals Seller must (i) assure that those Conflict Minerals are "DRC conflict-free" as defined in the Conflict Minerals Law; (ii) provide on request information on Conflict Mineral smelters in the relevant supply chains including whether those

smelters are DRC conflict-free; (iii) provide on request such other information as Northwire may reasonably require to determine the DRC conflict-free status of Conflict Minerals used in Goods; (iv) adopt policies and management systems consistent with Northwire's Conflict Minerals Policy located at <https://www.northwire.com/resources/supplier-documents>

3.6 Purchasing Information

Purchasing documents of NWI suppliers shall contain information describing the requirements for approval of the product and the qualification of the procedures, processes, specifications, equipment and personnel necessary to produce the product.

3.7 Verification of Purchased Product

Verification of purchased product shall be conducted using a documented quality assessment methodology. The primary supplier to NWI is fully responsible for the quality of the products and services they provide, including that of the supplier's supply chain.

3.8 Control of Production and Service

Process control is needed to ensure that the manufacturing process is performed under stable conditions. Documentation shall be provided to assure quality of products at initial production and is used to maintain ongoing acceptable quality levels. Examples of process control documents are process sheets, inspection and test instructions, test procedures, standard operating procedures, preventive maintenance instructions, and specific part control plans.

Process control documents shall be in place prior to initial production and be readily available to the employees responsible for the operation of the process. The key processing parameters, process and product key characteristics identified during Design Reviews, FMEA's, and DPARs shall be addressed in the process control documents, including a control plan. Process control documentation or control plans shall be available for review by NWI. Minimum process capability for a key characteristic is a Ppk >1.33 or Cpk >1.33. Higher process capability requirements may be specified by the NWI representative.

3.9 Identification and Traceability

A supplier shall establish and maintain documented procedures for product identification. The supplier shall have product traceability to the extent required so that if a discrepancy is found, product can be contained and corrective action initiated.

Identification is a process to identify product during all stages of production. Traceability allows for parts to be matched to a certain time

frame, processes, and specific lots of material. Should a problem arise, NWI and the suppliers shall identify suspect parts.

3.10 NWI Property

The supplier shall exercise care with all NWI property, including intellectual property, while it is under the supplier's control or being used by the supplier. The supplier shall identify, verify, protect and maintain NWI property provided for use or incorporation into product. Should any NWI property be lost, damaged or otherwise found unsuitable for use it shall be recorded and reported to NWI. Processing equipment, tooling, and measuring equipment / fixtures owned by NWI are covered under this section.

3.11 Preservation of Product

The supplier shall preserve conformity of product with customer requirements during internal processing and delivery to the intended destination. This shall include identification, handling, packaging, storage, and protection. This also applies to the constituent parts of a product.

3.12 Gauge Selection

In selecting measuring equipment, NWI is concerned with the capability of the measurement system to detect and indicate even small changes of the measured characteristic. The measuring equipment selected should have a discrimination of less than one-tenth of the total product tolerance being measured.

3.13 Calibration

A supplier shall establish and maintain documented procedures for the calibration, control, and maintenance of measuring, inspection, and test equipment used to assure that products and processes conform to applicable requirements. A supplier shall calibrate these devices at consistent periodic intervals against applicable standards with known traceability, and safeguard them against adjustments that would invalidate the calibration. Whenever a gauge is found out of calibration and it has been used to verify parts for NWI, the supplier shall notify NWI of the suspect parts.

4. Measurement Analysis and Improvement

Reference Section 11 for suggested tools that support the DMAIC process.

4.1 General

Measurement, analysis and improvement are the processes of planning, defining, and using performance metrics in processes and products critical to NWI. These performance metrics are used to determine the

current level of performance, drive continuous improvement activities, and monitor long-term performance levels.

Critical to the use of these performance metrics are statistical tools. These statistical tools are not only used on processes and products, but also measure customer satisfaction and supply chain performance. A supplier shall define, plan, and implement measurements where processes affect the quality of products or services NWI receives.

4.2 Customer Satisfaction

A supplier shall include a customer satisfaction metric in the review of its quality management system. This metric shall be included in the management review process. Trends in customer satisfaction performance should be reviewed and improvement activities developed around the data. Customer satisfaction improvement activities should utilize a structured process improvement technique.

4.3 Internal Audit

Suppliers shall maintain an internal audit program that includes a certification process for their internal auditors.

The supplier shall audit its quality management system to verify compliance with this standard and any additional quality management system requirements.

NWI reserves the right to conduct a quality system assessment at the supplier's facility. When performing this assessment, NWI would expect access to a supplier's personnel, documentation, gauging, and test facilities. At the close of the assessment, NWI will share findings in a debriefing meeting and issue a report to the supplier summarizing the results. Any items requiring corrective action shall be clearly noted, and the supplier shall submit a corrective action plan to address these issues within the agreed upon target date.

4.4 Product Audit

The supplier shall audit products at appropriate stages of production and delivery to verify conformity to all specified requirements, such as product dimensions, functionality, packaging and labeling, at a defined frequency.

4.5 Monitoring and Measurement of Processes

A supplier shall determine and implement measurements necessary to monitor processes critical to customer satisfaction. Mistake proofing activities should be the first method of control considered. If mistake proofing is not feasible, statistical techniques shall be used to monitor the process.

4.6 Monitoring and Measurement of Product

Product measurements and monitors are required to confirm the products are being produced properly and remain stable over time. Included in product measurement and monitoring are capability studies.

4.7 Analysis of Data

NWI expects our suppliers to obtain appropriate data and apply statistical and problem solving techniques to solve specific problems and to drive continuous improvement activities in a timely manner.

Summarized quality performance should be made available to all of the supplier's employees. Quality performance data shall be made available at the request of NWI personnel.

When a product or process does not meet customer specifications, or is not performing adequately, one suggested methodology is DMAIC:

Define: Define the project goals and customer (internal and external) deliverables;

Measure: Measure the process to determine current performance;

Analyze: Analyze and determine the root cause(s) of the defects;

Improve: Improve the process by eliminating defects and

Control: Control future process performance

5. Improvement

5.1 Continual Improvement

Evidence shall demonstrate the use of data, past experience, and lessons learned to show continuous improvement of the quality management system.

5.2 Corrective Action

Corrective action eliminates the cause(s) of nonconformities in order to prevent recurrence. Suppliers shall investigate resolution to nonconformities using eight Corrective Action steps or Resolution Phases. The supplier shall document Corrective Action in each Resolution Phase. Refer to NWI's Suppliers Corrective Action 8-D Worksheet at <https://www.northwire.com/resources/supplier-documents>

The **Eight Corrective Action Disciplines (8D)** or Resolution Phases required:

D1 Establish the Corrective Action Team

Purpose: To define the members of the team that can successfully resolve the problem.

D2 Problem Identification

Purpose: To document all facts, research and field information that would quantify or describe the problem in detail.

D3 Containment Action & Short Term Corrective Action

Purpose: Actions to isolate the effect of the problem from any customer until corrective action is implemented. To minimize the effect of any nonconforming product by containment, re-inspection, rework, etc., to verify conformance of current product. Identify and contain nonconforming product at all locations including, but not limited to; in-house at supplier facility, in-transit material, material located at various NWI sites and endues customers. Containment shall be completed within 24 hours of problem notification.

D4 Define and Verify Root Cause

Purpose: Scientific, complete breakdown of the Direct Cause, Contributing Causes and Root Causes of the problem.

D5 Choose and Verify Solution

Purpose: Identification of solutions or actions that will eliminate the Root Causes as well as the Contributing Causes. Quantitative results confirming that the selected corrective actions will resolve the issue for the customer.

D6 Implement Permanent Corrective Action

Purpose: Action taken in this phase will correct the root cause of the problem and prevent its recurrence. Implementation includes listing action steps, identifying responsible people and target dates for each action. This action shall be completed by the target date as specified by NWI.

D7 Prevent Recurrence

Purpose: Modifications to Management Systems, Operating Systems, practices, and procedures such as Process Control Plans, DFMEAs, PFMEAs, Work Instructions, Training Plans, Training Performed, Engineering Documentation to prevent recurrence of this and all similar problems. The responsible person or 8D team reviews all activity performed through resolution phases and confirms that all steps have been completed. It is recommended that the improvements resulting from the Eight Step Problem Resolution Process be replicated to like processes or products to assure the problem has been solved.

D8 Team Recognition

Purpose: Acknowledgement from management of the good work done by the 8D team. This set is to recognize extra effort and reinforce successful behavior.

5.3 Preventive Action

Preventive action eliminates the cause(s) of potential nonconformities in order to prevent their occurrence. Preventive action focuses on building good quality into the product and processes to ensure that nonconforming products never reach the customer. Processes should be developed so employees can do the job right every time. The processes include, but are not limited to: data collection systems, process control plans, mistake proofing techniques, training, continuous improvement actions, design FMEAs, and process FMEAs. Preventive action activities shall be a part of the management review process. A supplier shall take a systematic approach to defining and implementing preventive action activities. Preventive actions can be developed using the same DMAIC process as described in the previous section.

6. Supplier Approval Process

In order to be a supplier to NWI, there is a formal approval that must be followed. Exceptions to this process can only be authorized by a NWI executive management representative. The approval process is as follows:

- New suppliers start the approval process by completing the Supplier Application Form found at <https://www.northwire.com/resources/supplier-documents> and are also required to sign a mutual nondisclosure agreement.
- The initial supplier selection process for providers of products or services for NWI may include a Supplier Self-Assessment Survey found at <https://www.northwire.com/resources/supplier-documents> and/or an on-site assessment. Assessments shall determine the supply chain's capability to meet the requirements of this standard. Suppliers shall monitor their supply chain's performance and the requirements of this document should be extended to the supplier's supply chain. A supplier shall have a documented system to properly select suppliers with the capability to meet this standard and other applicable NWI standards. It may be appropriate for the supplier to have their supplier(s) participate in NWI's initiated reviews and other quality activities. A supplier shall have a communication plan to notify their supply chain of the latest specifications and to verify the product on an ongoing basis. A change in the supply chain, or any process change by the supply chain that produces the NWI product, requires appropriate quality planning, and NWI notification prior to implementation. NWI requires documented approval before implementation.
- The responsible NWI Purchasing and Quality Representatives determine if the supplier is conditionally approved.
- Fully approved status can be obtained through performance as measured by NWI's evaluation of the supplier's performance. The evaluation criteria can be found in Section 5 of this guide.

7. Recovery Fees

What is a supplier chargeback?

A supplier chargeback is an amount charged the supplier for supplier-caused nonconforming material, products, or a service which includes, but is not limited to actual/estimated rework costs and minimum rework charges. There may be instances when additional charges may be charged to the supplier for business interruptions.

As a supplier of Northwire, Inc., you are responsible for ensuring that product is shipped to Northwire that meets product specifications; and that the product arrives in good condition. The purpose of chargebacks is not to create revenue for Northwire, but to recover operating expenses incurred as a result of supplier errors.

If product is found to be nonconforming or arrives in an unsuitable condition, Northwire will typically ship the product back to the supplier for rework or replacement.

There may be times when Northwire's customer requirements do not allow for enough time to ship the product back to the supplier. In those cases, the appropriate Northwire Supply Chain Representative will send the supplier the estimated Northwire rework costs. The supplier has 24 business hours to not accept the estimated costs. If no response is received from the supplier within the allotted time period, the estimate is considered accepted, and rework will proceed at supplier's expense.

The minimum charge is \$100/Hour.

REQUEST FOR RECOVERY PROCESS

- An event occurs where justifiable expenses are incurred by Northwire.
- Northwire Supply Chain representative will provide supplier advance notification in writing of potential supplier related issue.
- A Request for Recovery Fees Form is completed by the Department Supervisor impacted by the event.
- The Request for Recovery Fees is submitted to Northwire Supply Chain Department.
- Northwire issues the Request for Recovery Fees to supplier.
- The supplier has two business days after receipt of notification from Northwire to contest the request (not including the day of notification).
- After 30 days, unless otherwise agreed to, Northwire will process the appropriate debit.

Reimbursable Expenses

- Accumulation of Non-Conforming Parts
- Reject Labor
- Production Down Time
- Lost or Delayed Production
- Part Qualification Non-Compliance (\$+ \$ / inspection hour)
- Chargeback fees Northwire incurs from our customer
- Expedited Shipments / Extra Shipments = Actual Costs Incurred

- Freight costs for replacement material as well as freight costs to return non-conforming product to the supplier.
- Repackaging or labeling = /labor hour plus material and transportation costs
- Travel expenses = Actual costs incurred

8. Supplier Evaluation

Northwire suppliers are evaluated as follows:

Strategic supply chain partners are evaluated monthly and scored quarterly for quality and delivery performance. Each of the suppliers are notified quarterly of their score.

Existing suppliers maintain approved status by achieving a score of 70 points or greater on the NWI Supplier Performance Evaluation. Scores below 70 points lead to a conditional approval.

Any supplier who has 2 consecutive quarters of <70pt overall score will be issued a SCAR for poor performance and may have a process audit scheduled. This also may result in supplier disqualification.

The scoring system is as follows:

- Quarterly Updates. This allows time for improvements to be implemented from the previous quarter.
 - Quality (50 points)
 - Delivery (50 points)

9. Supplier Request for Change

Changes proposed by the supplier, both material and process changes, which may affect form, fit, function, reliability, serviceability, performance, functional interchangeability, regulatory compliance, safety, options or spare parts interchangeability or interference capability with NWI's products must be submitted for NWI's approval. The supplier shall not implement the proposed change until a NWI purchasing representative has approved the change.

The NWI change request form is located at

<https://www.northwire.com/resources/supplier-documents>.

NWI requires suppliers to electronically submit Change Requests via email to the NWI purchasing representative using the NWI Change Request form with the required information listed below.

Supplier is not to proceed until authorization is received from NWI.

This authorization to proceed is granted upon the understanding that it is advisory in nature and in no manner changes the Supplier's original responsibility for ensuring that all characteristics, designated in the applicable engineering specifications, and/or inherent in the samples as originally tested and approved, are maintained. Supplier accepts full responsibility for the changes of types of changes listed above and should such changes result in failure to meet customer requirements, Supplier shall be expected to fully reimburse NWI for all expenses incurred to correct the deficiency.

10. Nonconforming Material Management

10.1 Control of Nonconforming Product

The supplier shall establish and maintain documented procedures to ensure that proven or suspected nonconforming products are prevented from unintended use or installation. This control shall provide for identification, documentation, evaluation, isolation, disposition of nonconforming products, and for notification to the departments concerned (both internal and external).

The supplier shall inspect, test, and/or obtain other verification to ensure that the products are consistent with the code of conduct (Reference Section 2)

If materials are found to be nonconforming at NWI, the supplier shall provide the resources necessary to evaluate, contain, sort, reclaim, and/or scrap the nonconforming product. The supplier shall have a representative establish containment at the NWI factory, material in transit and at the supplier within 24 hours. Quicker response may be required based on the severity of the situation.

Supplier is also required to complete an 8D CAR and expedite root cause identification and corrective action to include lab analysis as required. The 8D CAR form can be found at <https://www.northwire.com/resources/supplier-documents>

If nonconforming products get into NWI products or become a warranty problem, it shall be the supplier's responsibility to aid NWI in evaluating and correcting the problem. NWI shall be entitled to recover from the supplier all costs and expenses reasonably incurred in taking corrective action per NWI's Terms and Conditions.

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

10.1.1 Control of Nonconforming Product

Product with unidentified or suspect status shall be classified as nonconforming product.

10.1.2 Control of Reworked Product

Instructions for rework, including re-inspection requirements, shall be accessible to and utilized by appropriate personnel.

10.1.3 Customer Information

NWI shall be informed promptly in the event that nonconforming product has been shipped.

10.1.3 Product/Material Deviation Request Form

If a supplier wants to ship a product not meeting the specified requirements, written approval shall be obtained from NWI prior to shipment of the product. This request can be made using the Product / Material Deviation Request Form. The Product/Material Deviation Request Form will be filled out and forwarded to the NWI Purchasing Agent. This applies equally to products or services purchased from the supply chain. The supplier shall concur with any requests from their supply chain before submission to NWI. The supplier shall maintain a record of the expiration date and quantity authorized. The supplier shall also ensure compliance with the original or superseding specifications and requirements when the authorization expires.

11. Nonconforming Material Notification

A Corrective Action Request (8D CAR) will be issued to suppliers upon the detection of nonconforming material. This form can be found at <https://www.northwire.com/resources/supplier-documents>.

When the supplier receives an 8D CAR, immediate containment of suspect material is required. Written notification that the nonconforming material is contained must be sent to the NWI Purchasing Representative within 24 hours of the receipt of the 8D CAR.

The entire 8D CAR form must be completed and returned to the NWI Purchasing Representative by the due date indicated on the form.

This area was intentionally left blank

12. Improvement Tools (DMAIC Tool Set)

As a resource to our suppliers to assist them in their journey we have included NWI's problem solving and improvement methodology and suggested tools in alignment with Lean Six Sigma.

Lean Six Sigma Phase		Suggested Tools	
D	Define and Prioritize	Affinity Diagram	
		Failure Mode & Effect Analysis (FMEA)	
		Process Flow Chart	
		Project Priority Calculator	
		Value-added Flow Chart	
		Value Stream Analysis	
M	Measure Performance	Histogram	
		Measurement System Analysis (MSA)	
		Pareto Chart	
		Six Sigma Conversion Table	
		Statistical Process Control (SPC)	
		Trend Chart	
A	Analyze Root Cause	5- Why Analysis	
		Design of Experiments	
		Fishbone (Ishikawa) Diagram	
		Regression Analysis	
I	Implement Improvements	5S tool	
		Brainstorming	
		Corrective Action Matrix	
		Error-Proofing	
		Kaizen	
		One Piece Flow	
		Pull Scheduling	
		Quick Changeover (SMED)	
		System Diagrams	
		Total Productive Maintenance	
C	Control the Process	CHECK Process	
		Control Plan	
		Standardized Work	
		Statistical Process Control (SPC)	

For more detailed information and training on these tools, contact American Society for Quality (ASQ) at www.asq.org or MoreSteam University at www.moresteam.com.

Revision History

Author	Revision Summary	Date	Rev Level
BW, MP, MJS	Original Document Published	3/13/13	A
KR	Revised the title of section 2.3	3/28/14	B
KR	Reformatted and added PPAP and FAI requirements. Updated Regulatory section.	1/20/15	C

DK	Added Recovery Fees, updated Supplier Evaluation and updated the NWI Quality Policy	8/25/2016	04
DK	Updated Section 3.2.1 First Article Inspection	10/27/2016	05
DK	Added Conflict Minerals section 3.5.3	5/1/2019	06
DK	Updated the link to supplier resources	12/02/2019	07