
# Supplier Quality Manual

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## • INTRODUCTION

**Our Suppliers**

DiaCom recognizes the exceptionally important role our Suppliers have in the value we offer our customers. As an extension of our own operations, we rely on our Suppliers to provide material, products, and services which meet the requirements of DiaCom contracts, applicable specifications, and the quality management requirements outlined herein.

**Purpose**

DiaCom serves diverse market sectors, such as aerospace, industrial, automotive, and medical. The purpose of this manual is to inform DiaCom Suppliers of the core expectations we have regarding the Suppliers' quality management systems, design requirements, and manufacturing process controls required for the purpose of doing business with DiaCom. This manual describes what DiaCom expects its Suppliers to do to ensure that all DiaCom requirements and expectations are met.

**Scope**

This manual applies to all Suppliers providing DiaCom with materials, products, processing, and related services, including intra-company Suppliers, who form a part of deliverable product, and when applicable, to Supplier sub-tier sources.
In the event of conflict between the requirements of this manual and the requirements of the purchase order, the purchase order requirement shall stand unless otherwise agreed with DiaCom Quality or Purchasing representative in writing.

*Section 3 applies only if specific quality clauses listed in the section are flowed down on the purchase order.*

**Requirements**

In this manual, the terms "shall" and "must" mean that the described action is mandatory; "should" means that the described action is necessary and expected with some flexibility allowed in the method of compliance; and "may" means that the described action is permissible or discretionary.

**Availability**

This manual is available via the DiaCom Web Page Downloads section, www.diacom.com , or through DiaCom Purchasing. Suppliers will be notified of document revision changes and are responsible for reviewing those revisions.

## • SUPPLIER CODE OF CONDUCT

The Supplier shall ensure operations are being performed in a manner that is appropriate, as it applies to their ethical, legal, environmental, and social responsibilities. Below is a listing of the basic requirements:

**Compliance with Local Laws and Regulations**

The Supplier must adhere to the laws and regulations in the locality in which they reside. This includes all local, state, and federal laws/regulations in the country of origin.

**Compliance with Environmental, Health, and Safety Laws**

The Supplier must maintain and operate its manufacturing/production facilities and processes in accordance with local, state, and federal laws/regulations in the country of origin. At no time shall any DiaCom person be exposed to hazardous materials or unsafe conditions as a result of Supplier shipments to a DiaCom location, or while visiting the Supplier's location. For items with inherent hazards, safety notices must be clearly visible. As applicable, safety handling and protection information must be provided.

**Non-Discrimination**

The Supplier shall not discriminate against race, color, sex, religion, age, physical disability, political affiliation, or other defining characteristics as prohibited by local, state, and federal laws/regulations in the country of origin.

**Ethics**

Evidence of corruption, bribes, improper advantage, or any other form of illegal practice by the Supplier or associated operations will terminate all relations with DiaCom.

**Code of Conduct and Policy Enforcement**

This policy applies to Suppliers and their sub-tier sources. It is the responsibility of the Supplier to verify and monitor compliance of this code at their operations and sub-tier source operations.

**Confidentiality**

The Supplier shall ensure the confidentiality of DiaCom-contracted products, processes and services, and related product information, as well as intellectual property shared in support of the working relationship.

Documents furnished by DiaCom to the Supplier are furnished solely for the purpose of doing business with DiaCom. The Supplier is responsible for controlling and maintaining such documents to preclude improper use, loss, damage, alteration and/or deterioration. Unless authorized by the DiaCom purchasing in writing, the Supplier may not transmit or furnish any DiaCom furnished documents, or copies of such documents, to anyone outside the Supplier's business organization except to sub-tier sources used by the Supplier for performance of work on DiaCom product.

## • DIACOM SUPPLIER COMMITMENT

DiaCom recognizes that strong supplier relationships are an essential component of our business strategy. It is our philosophy to build long-term relationships with our suppliers and to use those relationships to collaborate and strive for mutual improvement. Teamwork is the crucial element in maintaining those relationships.

As our suppliers' customer, DiaCom is committed to establishing and maintaining a two-way channel of communication. It is our intent to convey all requirements precisely, to eliminate any questions regarding the expectations we have of our suppliers. We also commit to being receptive of communications from our suppliers to clarify requirements, suggest improvements or resolve issues.

By way of active teamwork and open communication, DiaCom and our suppliers can drive improvements in quality, delivery, and cost reduction to our mutual benefit.

## • EXPORT CONTROL

"Export-controlled items," as used in this clause, means items subject to the Export Administration Regulations (EAR) (15 CFR Parts 730-774) or the International Traffic in Arms Regulations (ITAR)(22 CFR Parts 120-130). The term includes:

- "Defense items," defined in the Arms Export Control Act, 22 U.S.C. 2778(j)(4)(A), as defense articles, defense services, and related technical data, and further defined in the ITAR, 22 CFR Part 120.
- "Items" defined in the EAR as "commodities," "software," and "technology," terms that are also defined in the EAR, 15 CFR 772.1.

The Supplier shall comply with all applicable laws and regulations regarding export-controlled items, including, but not limited to, the requirement for the supplier to register with the Department of State in accordance with the ITAR. The supplier shall consult with the Department of State regarding any questions relating to compliance with the ITAR and shall consult with the Department of Commerce regarding any questions relating to compliance with the EAR.

The Supplier's responsibility to comply with all applicable laws and regulations regarding export-controlled items exists independent of, and is not established or limited by, the information provided by this clause.

## • COMPLIANCE

Raw material, component, insert, and special process suppliers must submit a RoHS (Restriction of Hazardous Substances) compliance letter that identifies the compliance status of the product/service. This letter must state that the supplier complies with the EU-Directive 2002/95/EC as amended by EU 2015/863 which restricts the use of ten hazardous substances: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and poly brominated diphenyl ethers (PBDE), bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP) and di-isobutyl phthalate (DIBP).

Raw material, component, insert, and special process supplier's supplier must submit a REACH (EU Regulation EC 1907/2006) compliance letter. Additionally, all new raw materials must be REACH compliant. This means all new raw materials must be free from all SVHC chemicals (Substances of Very High Concern). The list of SVHC's is updated approx. every 6 months at the following web site: http://echa.europa.eu/web/guest/candidate-list-table.

Raw material, component, insert, and special process suppliers must submit a Conflict Minerals Free compliance letter or the EICC reporting template (available from the EICC Website: http://www.eicc.info/Extractives.shtml). If a letter is supplied, it must state that the product supplied comply with the "Wall Street Reform and Consumer Protection Act of 2010" (also known as The Dodd-Frank Act) which requires a supplied product does not contain metals derived from Conflict Minerals necessary for the functionality or production of the product derived from the Democratic Republic of Congo or adjoining countries. The metals are Tantalum (derived from Columbite-tantalite), Tin (derived from Cassiterite), Tungsten/Wolfram (derived from Wolframite) and Gold. The Adjoining countries are: Angola, Burundi, Central African Republic, Congo Republic (a different nation than DRC), Rwanda, Sudan, Tanzania, Uganda, and Zambia.

If materials/service is not compliant with the above requirements the letter must clearly state that material is not compliant to the identified standard and identify the noncompliant ingredients and percentages.

Product that is not compliant to the above requirements requires disclosure to DiaCom prior to acceptance of purchase orders.

## • RIGHT OF ENTRY

DiaCom, our Customers, Government representatives, and regulatory agencies will have the right of entry to survey facilities and review all processes, subcontractors, contracted parts, procedure, and records to verify the quality of contracted work, records, and material.

The Supplier will permit reasonable access to OASIS and NADCAP database information as applicable.

## • APPLICABLE DOCUMENTS / REFERENCES

When applicable to the specific contract/PO, the documents referenced in this manual shall be the current revision at the date of the issuance of the contract/PO.

- ISO 9001 Quality Management Systems Requirements
- AS 9100 Quality Management Systems Requirements (Aerospace)
- ISO 13485 Quality Management Systems Requirements (Medical)
- TS16949 Quality Management Systems Requirements (Automotive)
- AS 9102 Aerospace First Article Inspection Requirements
- NADCAP

## • DEFINITIONS

- FOD – Foreign Object Debris/Damage. Protection of product from being invaded and/or damaged by foreign objects during manufacturing, assembly, test, packaging, and transportation
- Key Characteristics – An attribute or feature whose variation has a significant effect on product fit, form, function, performance, service life or producibility, that requires specific actions for purpose of controlling variation.
- Supplier - A first tier direct supplier to DiaCom
- Sub tier-Supplier – A supplier to an DiaCom direct supplier
- Special Processes – "...the resulting output cannot be verified by subsequent monitoring or measurement and, as a consequence, deficiencies become apparent only after the product is in use or the service has been delivered (welding, heat treat, MPI, LPI, plating, brazing, …)
- DSQR – Designated Supplier Quality Representative
- QMS – Quality Management System

## • DIACOM QUALITY POLICY

DiaCom Corporation is committed to meeting or exceeding customer and applicable requirements, through continuous improvement of our quality management system processes and our products with a focus on quality, delivery, and reliability, in a cost-effective manner.

## • SECTION ONE - QUALITY SYSTEM REQUIREMENTS

**System Requirements:**

The Supplier shall maintain a Quality Management System (QMS) suitable to the products and services provided to DiaCom, which is certified by an accredited third-party certification body to the latest version, as applicable, such as but not limited to:

- ISO 9001 - Quality Management System Requirements
- AS9100 - Quality Management System Requirements (Aerospace)
- ISO 13485 – Quality Management System Requirements (Medical Devices)
- TS16949 – Quality Management System Requirements (Automotive)

In the absence of third-party certification, depending on the product, its application, value, and criticality, the DiaCom management may authorize the acceptance of other evidence of compliance. This may include DiaCom audit or first-party (self) assessment to the applicable criteria above, or to a set of alternative basic quality requirements (such as those described in a 'Supplier Quality System Survey').

***DiaCom Suppliers shall comply with the following requirements to the extent applicable:***

- *Calibration Suppliers - shall be NIST traceable and shall establish and maintain a measurement management system that is in compliance with either:*
  - *ANSI/NCSL Z540.1 - Calibration Laboratories and Measuring & Test Equipment Requirements, or*
  - *ISO 10012/ISO 17025 - Requirements for Measurement Processes and Measuring Equipment*
- *Aerospace Special Process Suppliers - shall establish and maintain a QMS that is in compliance with AS9100, AS9003 or PRI/Nadcap AC7004.*

**Quality Manual:**

Upon request, the Supplier shall furnish DiaCom with a copy of the Supplier's Quality Management System Manual, which is to be current and approved by the Supplier's management, including, or making reference to related documents.

**<u>Notification of Changes</u> – The supplier is required to give written notification when making significant changes to their systems such as name change, address change, frozen process change, and significant changes in management and/or ownership.**

**Suppliers that do not meet all the quality system requirements listed herein within Section 1 are required to notify DiaCom in writing. Notification to be reviewed by DiaCom management to determine if exception request can be granted**

**Quality Objectives:**

Suppliers that demonstrate a 95% -100% overall rating will be given “Preferred Supplier” status.

Suppliers that demonstrate a 75% - 100% overall rating will be given an "Approved Supplier" status.

Quality and Purchasing will determine action to be taken when a supplier has a less than 75% overall rating. Past performance history and volume of activity will be considered when determining action to be taken. Actions taken may include termination of the supplier, development of new sources, decrease purchasing activity, increased inspection requirements and/or a formal cause and corrective action may be issued.

**Documentation and Record Control:**

Documentation and records necessary to demonstrate compliance with the requirements of the purchase order will be maintained and made available for auditing by DiaCom or DiaCom customers’ representatives upon request.

Corrections to work instructions or documents associated to materials delivered to DiaCom shall be recorded, dated and traceable to the originator. The use of correction fluid on documents and records ***is strictly prohibited.*** Instead, corrections shall be made by single line strikethrough of erroneous content and shall indicate originator and date of correction.

Records relative to delivered product/services shall at a minimum include purchase order/contract review records, material certificates of conformity, inspection/test reports including FAI reports, calibration data, , non-conformance and corrective action data, personnel training and competency records and evidence of sub-tier selection and control.

Production process, material, and test/inspection records relative to traceable (serialized), life critical, flight safety or safety critical material as directly identified on the purchase order, delivered to DiaCom shall be retained indefinitely and shall not be destroyed without the permission of DiaCom. Above listed records for all other material/services delivered to DiaCom shall be retained for no less than 7 years unless written authorization is obtained from DiaCom. If the supplier is not able to continue to retain these records, they must be offered to DiaCom for retention.

**Training:**

The supplier shall determine the necessary competence for personnel performing work, inspection and tests affecting product quality and maintain appropriate training and qualification processes to ensure that delivered product and services meets all established requirements. For special processes, the personnel performing the function shall be suitably qualified in accordance with the applicable standards.

Persons performing work on product to be delivered to DiaCom shall be trained and competent to perform the activities as defined by the supplier's system and are aware of:

- their contribution to product or service conformity
- their contribution to product safety
- the importance of ethical behavior

All personnel performing visual inspection shall be capable of meeting the following eyesight requirements in at least one eye corrected or non-corrected:

- Near Vision: Jaeger J.2 or Snellen N5
- Color: Ability to distinguish red, green, blue, and yellow as determined by Standard Colored Plates Testing shall be performed annually and a record of tests shall be maintained. Personnel who fail to meet this requirement shall be formally assessed for quality of work by their supervisor and may continue to perform work for which their capability is shown to be satisfactory.

**Quality Planning:** *(applies only when flowed down on PO)*

Where a Quality Planning document is required from a Supplier, this must be submitted to DiaCom quality for approval. Usually, the plan will take the form of one or more of the following:

- Quality Plans: These will be generated to show the processes and control necessary to delivered product and may include as flowed down:
- Process Control Plans: These will be generated to show detailed control of a specific process e.g., Plating
- Process Capability Studies: These will be generated to show a Cpk ≥1.33.
- Inspection Release Plans: These will be generated to show specific Key Features to be checked on a drawing and sample sizes to be adhered to.

**Contract Review:**

Purchase orders shall be formally reviewed by the supplier to ensure that the supplier has the technical and logistical capabilities to meet the requirements. Any discrepancies or issues will be resolved in a documented traceable manor before the order or contract is accepted.

***Verbal agreements or instructions shall under no circumstances be construed as approval or authorization to proceed.***

Once the Purchase Order has been reviewed and accepted, the supplier is to send signed confirmation to DiaCom purchasing.

**Requests for information:**

Supplier requests for information, clarification of requirements or need for support **MUST** be submitted writing/email to DiaCom purchasing.

**Purchasing:**

**The Supplier will not subcontract any part of the process without the written approval of DiaCom.** If the Supplier subsequently sub-contracts part of the work with DiaCom's agreement, then the Supplier will ensure that all flow down requirements are flowed down to each sub-tier supplier.

- Supplier uses only approved external providers controlled by their AVL, or DiaCom designated supplier if flowed down on the PO, including process sources providers.

DiaCom reserves the right to evaluate and audit any sub-tier contractor/supplier for approval. Any such action will not relieve the direct Supplier of responsibility to ensure the quality of any product/service obtained.

The Supplier will maintain documented procedures for qualifying, approving and measuring the performance of sub-tier suppliers.

The Supplier shall maintain records of all "on receipt" inspections and Approval Certificates for received materials as evidence of verification of purchase product.

Where specified on the drawing or purchase order, the Supplier shall purchase raw materials, products, materials, or special process services from DiaCom designated sources. The Supplier is responsible to ensure that items procured from such sources meet all applicable technical and quality requirements.

Special Process Certs are required with each shipment for all special processes performed by the supplier

**Purchasing: Special Processes** *(applies only for aerospace product when NADCAP is flowed down on PO)*

Nadcap accreditation is required for aerospace suppliers and their sub-tiers that provide special processes such as but not limited to the following:

- Brazing
- Chemical Processing
- Passivation
- Coatings
- Heat Treating
- Materials Testing
- Nonconventional Machining
- Welding
- Plating
- Shot Peening
- Welding

*Non-NADCAP approved special process suppliers require approval in writing from DiaCom before work may be performed. Approval to be maintained on file in* DiaCom *purchasing.*

**Production Control:**

The Supplier shall prepare documented work instructions, as necessary, for all employees having responsibilities for the operation of processes that impact product quality. These instructions shall be maintained current and accessible by employees.

Changes that may affect quality including changes to materials, processes, and equipment must be documented and communicated to DiaCom purchasing prior to effectivity of the change.

**Change Control:**

Supplier must notify DiaCom in writing of changes that can impact the quality of deliverable products/services including at a minimum change to design, equipment, processes, material, or services, including changes of their external providers or location of manufacture. DiaCom will access impact and nature of change and determine appropriate action to be taken and coordinate with the supplier.

**Foreign Object Debris (FOD) Control:**

The Supplier shall establish and maintain an effective Foreign Object Damage / Debris Prevention Program (FOD) to the extent applicable. The program shall be proportional to the sensitivity of the design of the products(s) to FOD, as well as to the FOD generating potential of the manufacturing methods.

For components, sub-assemblies, and assemblies susceptible to foreign object debris / damage, the Supplier shall ensure articles are free from foreign objects and foreign object damage resulting from supplier processing.

**Product Obsolescence / Discontinuation:**

As soon as the Supplier becomes aware of product obsolescence, the Supplier shall inform the DiaCom Purchasing department.

**Customer Property:**

All DiaCom supplied tooling becomes the responsibility of the Supplier while it is in their possession. The equipment must be maintained in a reasonable condition and subjected to an appropriate calibration process where applicable. All DiaCom supplied tooling must be returned when requested by DiaCom.

**Counterfeit Parts Prevention:**

The Supplier shall establish and maintain a Counterfeit Parts / Material Prevention and Control Plan to the extent applicable, to ensure that counterfeit product is not delivered to DiaCom. The purpose of the plan shall be to develop a robust process that prevents delivery or use of counterfeit or suspect counterfeit materials and to control materials that have been identified as counterfeit.

**Identification and Traceability:**

All raw material obtained by the Supplier to meet an order, and all parts incorporated into assemblies which are subsequently supplied to DiaCom must be traceable to the manufacturing source and identifiable to the manufactured item through all stages of the Supplier's manufacturing process. In the event of processes being further sub-contracted, traceability to the sub-tier control, inspection and/or test records must be maintained.

All suppliers/distributors of raw material must also attach, with each delivered batch, a copy of the original material certificate obtained from the source mill.

All suppliers/distributors of chemicals, oils and lubricants must also attach, with each delivered batch, a copy of the Safety Data Sheet (SDS)**.**

For all shelf-life controlled materials, the date of manufacture and/or expiration date shall be listed on each individual container/lot and/or on certification which must be traceable to each individual container/lot.

**Preservation and Packaging:**

Materials will be stored and protected in such a manner as to prevent damage and deterioration or loss of identification and traceability at all times. The Supplier shall preserve the conformity of product during internal processing and delivery to DiaCom. Preservation shall include, where applicable:

- Cleaning
- Use of rust preventive methods for all parts subject to corrosion
- Protection of external threads
- Prevention, detection, and removal of foreign objects
- Marking/labeling including safety warnings
- Shelf-life control and stock rotation
- Temperature controls for temperature sensitive materials

**Delivery:**

The Supplier shall ensure that all material is delivered on time within 3 days from delivery date specified on purchase order, correctly identified, and clearly labeled, as required by applicable drawing, specification and/or purchase order.
Deliveries shall be packaged to prevent damage, deterioration, corrosion, and other risks during transportation. Certification, test reports and documentation requirements as identified on the DiaCom purchase order shall accompany each delivery as appropriate.

**Calibration:**

The Supplier shall develop and maintain a calibration system per MIL-STD-45662, ANSI/NCSL Z540.3, ISO 10012, or ISO 17025. All measuring and test equipment shall be calibrated to standards traceable to the National Institute of Standards and Technology (NIST).
The Supplier shall immediately notify DiaCom Quality in the event of any calibration failures that may affect any products previously supplied.

**Inspection & Testing of Product:**

The Supplier is responsible for 100% verified quality for all items delivered to DiaCom. Inspection may be carried out to an approved AQL Inspection Plan or Quality Control Plan. All inspection and test operations shall be satisfactorily completed prior to shipment of the product. Records of all inspections and tests shall be maintained and made available for auditing by DiaCom or DiaCom customers' representatives upon request

When using approved inspection or quality control plans the Supplier shall utilize C=0. If any sample product or process fails to meet specified requirements the lot is to be rejected and dispositioned according to the Supplier's internal MRB system.

Final acceptance of material is subject to DiaCom inspection and DiaCom customer acceptance.

**First Article Inspection:** *(applies only when flowed down on PO)*

The Supplier shall conduct a First Article Inspection (FAI) that meets the requirements of AS9102 when flowed down on the DiaCom purchase order when any of the following conditions apply:

- The first production run of a new product/part#
- The first production run of a product/part # new to the supplier
- The production run of a product/part# after a break in manufacture of that product/part# by the supplier of more than 2 years

The First Article Inspection (FAI) requirement, once invoked, shall continue to apply even after initial compliance. Partial or complete FAI is required for the following events:

- A change in the design affecting fit, form, or function of the part
- A change in manufacturing source(s), process inspection method(s), location, tooling, or materials with the potential of affecting fit, form, or function
- When required as part of corrective action for a part number with a repetitive rejection history

All components subject to FAI are to be clearly identified to an FAI Report which shall accompany the product on delivery. The report shall record dimensions, test results and other features with reference to the drawing/specification requirement.

**Source Inspection:** *(applies only when flowed down on PO)*

The Supplier's products or services may be subject to source inspection by DiaCom, representatives of DiaCom or applicable government or regulatory agencies. Source inspection requirement will be included on the contract. The Supplier shall provide the necessary access, equipment and resources required to effectively accomplish the source inspection.

**Certification & Release:**

All materials and services shall be accompanied by a Certificate of Conformity, signed by authorized personnel, which must carry as a minimum the following information:

- Supplier Name and Address
- Statement of conformance to requirements including specific reference as applicable to the below items:
  - REACH, RoHS compliance as detailed in the Compliance Section of this document, if applicable
  - DFARS 252.225-7009,7008 if applicable
  - Material Specification and revision if applicable
- DiaCom Purchase Order and Line-Item numbers
- DiaCom Mfg. Part number and drawing revision as identified on the PO
  - COTS items may use the industry or catalog part number
- Quantity delivered
- Supplier Work Order/Batch/Lot/Heat Lot number(s) as applicable
- Additional certifications/test reports are required as detailed below
- CofC is not an acceptable substitute for raw material and/or special process certs

**Specific Requirements for Elastomers:**

Elastomeric compounds shall be mixed per the specific formulation. Substitutions are not allowed without prior written consent from DiaCom's Chemist. Any other special requirements will be stated on the purchase order or advised prior to production launch of material.

Testing per the following test methods is required to be reported for every batch. Alternate test methodology must be submitted to and approved in writing by DiaCom's Chemist.

a. Physical Properties
   - Tensile Strength – per ASTM D412-98a
   - Elongation – per ASTM D412-98a
   - 100% Modulus – per ASTM D412-98a
   - 300% Modulus – per ASTM D412-98a
   - Durometer – per ASTM D2240-03
   - Specific Gravity – per ASTM D297-93

b. Rheological Properties
   - Minimum Torque – per ASTM D2084-01
   - Maximum Torque – per ASTM D2084-01
   - TC90 – per ASTM D2084-01
   - TS2 – per ASTM D2084-01

c. Mooney Viscosity – per ASTM D1646

d. For Silicones/ Fluorosilicones only – Williams Plasticity per ASTM D926-02

**Specific Requirements for Fabric:**
Test results for the following properties are required to be reported for every lot:

a. Tensile
b. Thickness
c. Thread Count
d. Width

**Specific Requirements for Coated Fabric:**
Test results for the following properties are required to be reported for every lot:

a. Thickness
b. Visual Appearance
c. Mullen Burst
d. Fabric specific (see requirement for fabric)
e. Rubber specific (see requirements for Elastomer)

**Specific Requirements for Components/Inserts:**
The following certs are required with for every lot:

a. Material certs required for the raw material used in the manufacture of the component/insert.
b. Special process certs for all special processes used in the manufacture of the component/insert, if applicable.

*Exclusion- Not required for COTS (Commercial off the Shelf) purchased products.*

**Non-Conforming Products:**

For nonconforming products supplied to DiaCom, including those that reach a DiaCom customer, the Supplier must cover all costs incurred by DiaCom to correct the nonconformance.

The Supplier shall have a system for the control of non-conforming items that must include provision for:

- Identification of non-conforming material or parts.
- Segregation and containment of such material or parts from acceptable items.
- Documentation defining the nature of the defect and what cause and corrective action has been authorized and undertaken. The document must clearly state the defective parts by quantity and serial/batch number.
- Evidence that appropriate action has been taken to prevent recurrence.

**Waivers and Deviations:**

DiaCom policy is to restrict non-conforming material and discourages the submission of waiver and deviation requests for non-conforming materials. Requests for permission to deviate from the purchase order, drawing or specification requirements **MUST** be submitted to in writing to DiaCom purchasing in advance of delivery.

Approval is required prior to shipment of non-conforming material.

When a deviation is approved, the non-conforming material shall be clearly identified, and a copy of the dispositioned/approved deviation included with each affected shipment. Failure to observe these requirements will result in rejection of parts.

**Scrap Procedure:**

Non-conforming parts that are deemed non-recoverable and beyond economical repair shall be disposed of, in such a way that they can never be salvaged or reconfigured as fit for use. Appropriate records of the actions taken will be maintained.

**Rejected Parts by DiaCom:**

Products that do not conform to the requirements of DiaCom purchase order, or of this document, are liable for rejection by DiaCom. The Supplier will be notified. A NCMR (nonconforming material report) will be generated by DiaCom and/or a formal corrective action may be issued as deemed necessary by DiaCom quality. An initial acknowledgement response and containment plan is due within 2 business days.

**Corrective Action:** *(if required)*

If required a formal root cause and corrective action response is due within 30 days of being issued from DiaCom. The corrective action shall address the following:

- Containment action – to prevent supply of further non-conforming parts (Typical containment is 100% inspection of any existing stock, WIP and new orders processed prior to completion of the corrective action)
- Root cause investigation – to identify the specific cause(s) that allowed nonconformance to develop.
- Corrective action – specific action(s) taken to eliminate the identified root cause(s) of the nonconformance and prevent recurrence.
- Preventive action – specific action(s) taken to prevent non-conformities affecting similar products or processes.
- Verification action – actions that will be taken to establish that the corrective action was effective.

Nonconforming parts will be returned to the supplier to allow for evaluation and root cause analysis.

The use of problem-solving tools (e.g.: 5 Why's, fishbone charts etc.) is strongly recommended for root cause analysis and mandated when full 8D CAR requirement is flowed down by DiaCom. When developing a long-term action plan, the use of mistake proofing solutions is preferred and should be used when practical.

Statements from the Supplier indicating that the corrective action is to alert or retrain the operator, and/or increase inspection, alone, are NOT acceptable corrective actions. These kinds of actions are considered insufficient and do not address the underlying root cause(s) of why the Supplier's policy, instructions, process, procedure, and/or system allowed the problem to develop and occur and not be detected.

**Notification of Escapes**

It is the responsibility of the Supplier to notify DiaCom immediately of any products/processes that were provided and later discovered to be defective. The notification shall be made e-mail to DiaCom purchasing and/or quality within 24 hours.

**Order of Precedence**

The following defines the order of precedence in case of conflicts:

- Purchase order requirements
- Drawing/specifications
- This manual

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## • SECTION TWO - SUPPLIER EVALUATION PROCESS

DIACOM requires all Suppliers to be approved prior to the issuance of purchase orders. All Suppliers must be approved by DiaCom, regardless of approvals by customers or other entities.

**Supplier Assessment**

The Supplier Approval Process may include the following:

1. Supplier Initial Assessment
   DiaCom may request the Supplier to provide a copy of its quality management system certificate and/or complete the DiaCom Supplier Quality System Survey of its business and quality management system, risk assessment and capabilities (i.e., quality, delivery, technology, cost, and continual improvement objectives).
2. Documentation Audit
   In those cases where a Supplier's quality management system has not been certified by an accredited certification body, DiaCom may request a copy of the Supplier's Quality Manual and supporting procedures to determine if the Supplier's quality management system meets DiaCom requirements.
3. On-Site Assessment
   Generally, when a Supplier is certified to a related standard by an accredited certification body, DiaCom will not conduct an on-site assessment of the Supplier's quality management system against the same criteria. However, DiaCom and/or its customers, due to product/process complexity or criticality, may elect to conduct on-site assessments of the Supplier's product or process capabilities. As a result, findings may be issued. These assessments could include:
   - Quality Management System (QMS) – if necessary, as a result of (or in conjunction with) product or process capability assessments, to determine whether the Supplier's quality management system meets one or more of the applicable standards and is functioning effectively.
   - Business and Manufacturing Operations – to determine whether the Supplier has the financial resources, production capacity, and other business resources needed to fulfill DiaCom volume production needs and continuity of supply.
   - Technology Assessment - to determine whether the Supplier has the needed technical resources, including production and inspection equipment, facilities, engineering resources, etc.
   - Sub-Tier Supplier Control – to evaluate the effectiveness of the Supplier's sub-tier management processes and ensure that products or services procured from sub-tier sources and delivered to DiaCom conform to all applicable DiaCom requirements.

**Supplier Re-Evaluation**

DIACOM periodically re-evaluates its approved suppliers to ensure that they are still operating in compliance with the requirements of this manual.

The Supplier Re-evaluation Process may include the following:

1. Supplier Survey Assessment. (typical)
   DiaCom may request the Supplier to provide a copy of its quality management system/special process certificate(s) and/or complete the DiaCom supplier survey of its business and quality management system, risk assessment and capabilities (i.e., quality, delivery, technology, cost, and continual improvement objectives).
2. On-Site Audit
   These audits could include:
   - Supplier Quality Management System (QMS) Audit –to determine whether the Supplier's quality management system meets the requirements of this document and is functioning effectively to ensure that materials delivered to DiaCom conform to all applicable DiaCom requirements.
   - Sub-tier Supplier QMS Audit – to evaluate the effectiveness of the sub-tier's quality management processes to ensure that products or services procured from the sub-tier and delivered to DiaCom conform to all applicable DiaCom requirements.

**Supplier Performance Rating**

DiaCom's evaluation system uses several factors, at a minimum quality, delivery, escapes, and responsiveness to issues (SCARs) to develop an overall Supplier performance rating. This rating serves as an objective measure to determine whether DiaCom's expectations are being met.

At DiaCom's discretion, the DiaCom purchasing based upon input from quality may determine that to address the Supplier's performance deficiencies, a meeting with Supplier's management is necessary and a Supplier documented corrective action and improvement plan may be required.

The Supplier Overall Performance Rating is derived from the following as weighted below:

- Quality Rating 50%
- Delivery Rating 50%
- Overall Rating 100%
- Each escape lowers overall rating by 1%
- Each SCAR lowers overall rating by 5%

Quality Rating:

The Supplier shall provide product/services that are 100% compliant to specified requirements, including all documentation and certifications. Discrepancies in product/service may result in a reduction in the quality rating and delivery rating as defined below.

Note- Product accepted for use-as-is via approved deviation/waiver is still considered discrepant and may result in a reduction in the quality rating.

Note-Product that has missing or incomplete documentation, but no other discrepancies will not be accepted until documentation issues are corrected. Documentation only issues do not generally count against quality rating but are counted as escapes as defined below:

Escapes:

When product and/or documentation is not 100% compliant to specified requirements and is found by Diacom inspection it is classified as an escape. Each escape received at Diacom results in the loss of 1% from overall rating score for the rating period.

Delivery Rating:

The Supplier goal is to perform at 100% on time delivery. On time delivery is defined as 100% conforming parts with complete correct documentation, on the Diacom dock within 3 days of the agreed upon promise date listed on the PO. Supplier's deliveries that are late will be treated on a case-by-case basis and when delivery issues become chronic, a formal corrective action may be issued. Late or incomplete deliveries or deliveries with non-conforming products/services may result in a reduction in the delivery rating.

Corrective Action Response:

When the nature of a concern is deemed serious enough to warrant a formal corrective action being issued by DiaCom to the supplier it results in the loss of 1% from overall rating score. If the corrective action is not responded to satisfactorily within 30 days, then the loss changes to 5% form overall total rating for the rating period.

Overall rating is used to categorize the supplier's performance as follows:

- 95%-100% Preferred Supplier → *Considered approved on ASL*
- 94.9%-75% Approved Supplier
- Below 75% Red Supplier → *Not approved for orders*

Suppliers are rated quarterly during periods of activity only.

Specific details of the overall rating will be provided to a supplier when requested. Suppliers who have questions should contact the DiaCom purchasing.

**Supplier Unsatisfactory Performance**

Unsatisfactory performance below 75% overall rating will result in action, as applicable, up to and including disqualification of the Supplier.

Actions may include but are not limited to:

1. Requirement for the Supplier to make formal presentation to DiaCom management.
2. Requirement for the Supplier to perform formal root cause investigation and corrective action.
3. Requirement for the Supplier to take preventive action.
4. Requirement for the Supplier to develop and implement a formal quality improvement plan.
5. On-site audits and/or in-process and final inspection source audits.
6. Suspension of orders until performance issues are corrected.
7. Disqualification of the Supplier and loss of business.

## • SECTION THREE – PO SPECIFIC QUALITY REQUIREMENTS

The following paragraphs outline specific limited applicability DiaCom quality requirements and form a part of the purchase order.

**The specific paragraphs (Q codes) that apply are listed on the purchase order.**

(Q1) Government Rated Contracts - Rated orders are identified in the purchase order by either DX or DO. Rated orders take preference over all other orders to meet required delivery dates. DX rated orders take preference over DO rated orders.

(Q2) DFARS 252.225-7009,7008 - Restriction on Acquisition of Certain Articles Containing Specialty Metals Applies: Material on this purchase order must comply with DFAR 252.225-7009,7008. A statement certifying DFARS compliance to DFAR 252.225-7009 and/or 7008 must appear on the Certificate of Conformance.

- For the complete definition of the term “specialty materials” refer to the current DFARS.
- The Contractor agrees to include this DFARS clause, including this paragraph, in every subcontract or purchase order issued here under.

(Q3) Customer Source Inspection

All work on this order is subject to inspection and test by DiaCom’s customer prior to shipment from the Supplier’s facilities. Such verifications shall not absolve the Supplier of the responsibility to provide acceptable product. Nor shall it preclude subsequent rejection by DiaCom. Notify DiaCom purchasing to schedule source inspection by DiaCom’s customer.

(Q4) DiaCom Source Inspection - Source inspection is required by DiaCom, the Supplier shall contact DiaCom purchasing prior to shipment. Evidence of DiaCom source inspection shall be supplied with each shipment.

(Q5) AS9100 Quality Management System 3rd Party Approved - Quality Management System shall comply with AS9100 (Latest Revision) and shall be certified by an accredited 3rd party agency.

(Q6) NADCAP Special Process Certification – The Supplier shall maintain NADCAP special process certification(s) with scope applicable to processes being performed for DiaCom.

(Q7) First Article - AS9102 - First article inspection is required. First article shall consist of 100% compliance to the drawing, including dimensional and functional data performed on one piece unless otherwise stated on the contract. Variable data shall be documented when variable type of inspection method is applied. Material chemical / physical certifications shall also be verified and accompany the report.

- See Section 1 Quality System Requirements - First Article Inspection for requirement details.

(Q8) Visual Inspection - 100% visual inspection to flowed down visual acceptance criteria is required for all materials shipped.

(Q9) Statistical Process Control - Statistical process control is required and shall be implemented on the order as defined by DiaCom Quality Department. Critical/Key characteristics shall be monitored. SPC charts and or data are required with the shipment for each critical/key characteristic:

(Q10) Design Process Freeze - Upon DiaCom acceptance of the first article, the Supplier shall make no changes to the method of manufacture, equipment used, materials, or patterns which may affect interchangeability, function, dimensions, performance, and finishes. All changes shall be approved by DiaCom Engineering and Purchasing.

(Q11) Certificate of Test / Analysis Required – The Certificate of Test/Analysis shall contain at a minimum the information listed below to the extent applicable.

- Identifier associating test report to the Certificate of Conformance
- The testing specification used, if not called out by the material specification, and test conditions as applicable,
- The numerical results of all tests and inspections performed for which the specification established numerical requirements,
- Specification limits for each requirement/characteristic, to facilitate comparison of specification versus results,
- Description of results (e.g., conform/non-conform) of all tests for which specification does not establish numerical requirements,
- Statement that the certificate shall not be reproduced except in full without written approval of the laboratory,

(Q12) DiaCom Supplied Material - Only materials and parts supplied by or approved by DiaCom shall be used. Strict accountability of material furnished by DiaCom

shall be maintained by the Supplier. In the event that more than one lot or heat of material is furnished to the Supplier, the Supplier shall maintain individual material lot integrity and provide positive traceability of material lot/heat numbers to the specific product(s) delivered.

(Q13) Pre-production Samples – Prior to full production start-up of any part new to the Supplier, the Supplier shall produce a limited quantity (30 minimum) of pieces/units assemblies/castings to confirm process capability, and consistency of quality and performance.

**(**Q14) APQP Quality Plan –PPAP (Production Part Approval Process) per AIAG 4thed guidelines or similar DiaCom approved quality planning documents are required to be submitted to and approved by DiaCom prior to the start of initial production. Default PPAP level is 3 unless otherwise specified by DiaCom.

(Q15) Critical Flight Safety Item- Goods ordered herein are designated as a "Flight Safety Part" and or "Contains Flight Safety Parts Program (FSPP) Critical Characteristic" or a “Assembly Containing a Flight Safety Part” and or “Fatigue Controlled Parts.

Supplier shall certify on the Certificate of Conformance that all flight safety parts conform to the approved PPAP. Certification of inspections, of critical characteristics noted in the drawing, is required with each shipment. All data pertaining to the manufacturing of flight safety parts is to be retained for a period of seven (7) years following the delivery of the last item ordered herein. (End of program).

(Q16) Critical Safety Item- Seller is hereby notified that goods procured herein are designated as Critical Safety Items (CSI) as defined in DFAR 252.209-7010. Parts designated CSI may be subject to heightened, risk-based surveillance.

Supplier shall certify on the Certificate of Conformance that parts conform to CSI requirements.

(Q17) Calibration Certificate - The calibration service shall provide a certificate of calibration for each item calibrated. The certificate must include the date of calibration, listed uncertainties, calibration due date, model and serial number of the equipment used in the calibration and a statement that all equipment/standards used are traceable to the National Institute of Standards and Technology (NIST). The certificate must also include the DiaCom tool number, model number and serial number of the item calibrated.

## • REVISION HISTORY

| Revision Level | Date | Description | Page |
|---|---|---|---|
| 1 | | Initial Release | |
| 2 | | Add Right of Accessibility to Quality Management System Requirements | |
| 3 | | Define how existing suppliers become inactive | |
| 4 | | Rating system changed from overall score below 75% to if Delivery or Quality score is below 75% corrective action required | |
| 5 | | Add statement regarding Supplier records retention; Revise supplier approval and evaluation requirements | |
| 6 | | Add Conflict Minerals compliance requirement | |
| 7 | | Add REACH compliance requirements; Revise supplier approval and evaluation requirements | |
| 8 | | Add counterfeit parts, flow down requirements and ethics requirements; Clarify Class D Supplier approval process | |
| 9 | | Adds requirement for supplier's ethical behavior; Adds notification that suppliers be aware of their contribution to safety | |
| 10 | 8/9/12 | Update RoHS requirements in First Article requirements section | 7 |
| 11 | 5/2/22 | Updated to add requirements of AS9100 8.4.3 | 3 |
| 12 | 5/22/23 | Rewrote entire manual and added Q clauses to support class A material flow downs | all |
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