	Approved
	Quality Manual

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Rev	Change Description	Date	Approval
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1 Purpose

The purpose of this Supplier Quality Manual (SQM) is to outline processes and expectations for Valcor's external suppliers.

As Valcor's customers place increasing priority on perfect quality and on-time delivery, the performance of external suppliers is becoming an increasingly critical factor in Valcor's success. It is essential that Valcor partners with its suppliers to help them develop the capabilities necessary to meet these growing customer expectations.

Valcor encourages all suppliers to implement a Quality Management System (QMS) that complies with AS9100D *(Quality Management Systems – Requirements for Aviation, Space & Defense Organizations)* and/or ISO 9001:2015 *(Quality Management Systems - Requirements).*

Valcor expects suppliers to aspire to zero defects, failures, and losses, and further encourages all suppliers to develop processes and procedures that prioritize defect prevention and systematic improvements over defect detection (e.g., inspection) and containment activities.

2 Scope

Unless otherwise specified, this manual applies to all external suppliers providing direct material, or special processing services of direct material, to Valcor.

3 Document Precedence

Whenever there is a conflict between Valcor documents, suppliers must follow this order of precedence:

1) *Approved* Deviation/Change Request (DCR) (Form SF1019A)
2) Purchase Order (including all quality clauses)
3) Purchase Order Terms & Conditions
4) Engineering Drawings (including any supplemental documentation referenced on drawing)
5) Supplier Quality Manual

4 Definitions

Audit: An official evaluation of a supplier's capability to provide products that meet all Valcor requirements. Reference section 6.3.

Certificate of Conformance (CoC): A quality assurance document, issued and signed by an authorized party, certifying that a product meets all Valcor specifications. Reference section 6.11.

Deviation & Change Request (DCR): A formal request from a supplier to change or deviate from previously documented Valcor specifications. Reference section 6.10.

Direct Material: Any material that is physically converted into a Valcor finished product.

Discrepant Material Report (DRR): A formal report of a nonconformance identified by Valcor. May also be referred to as *Material Rejection Report (MRR):* Reference section 6.8.

Material / Mill Test Report (MTR): A quality assurance document that certifies a material's chemical and physical properties and compliance to relevant standards. Reference section 6.12.

Material Rejection Report (MRR): A formal report of a nonconformance identified by Valcor. May also be referred to as *Discrepant Material Report (DMR).* Reference section 6.8.

Supplier Corrective Action Request (SCAR): A formal request for a supplier to systematically identify the root cause of a nonconformance and execute corrective actions to prevent reoccurrence. Reference section 6.9.

Special Process: A production or service process where the output cannot be measured, monitored, or verified until after the product has been delivered to or is in use at Valcor. Examples include plating, anodizing, heat treating, passivation, etc.

Sub-Tier Supplier: Any secondary party providing a product, process, or service to the *supplier,* who will then provide a product, process, or service to Valcor.

Supplier: The party providing an external product, process, or service to Valcor, and identified on a Valcor contract as the "Seller."

Supplier Development Group: Valcor organization that includes the *Supplier Development Manager(s)*, *Supplier Quality Engineer(s)*, and/or *Supply Chain Manager(s)*, as necessary. Reachable via SupplierDevelopment@Valcor.com.

5 Introduction

5.1 Valcor's Quality Policy

Achieve total customer satisfaction and meet all applicable requirements by continuously improving the quality management system as well as all related work processes to satisfy our internal and external customers

5.2 Supplier Personnel Qualification

Suppliers must maintain processes and procedures (i.e., a documented training program) for onboarding and verifying the competence of all employees that will participate in the manufacturing processes of Valcor products.

Valcor reserves the right to request objective evidence of the foregoing requirement.

5.3 Test, Inspection, and Process Verification

Suppliers must maintain processes and procedures that ensure products conform to all Valcor drawings and requirements. This includes (but may not be limited to) incoming, in-process, and final test and inspection procedures, and production process verification activities.

Valcor may request evidence of a supplier's test, inspection, or production process verification activities. These requests will be noted on the purchase order and are covered in detail in other sections of this manual.

5.4 Product and Process Change Management

Once a product has been provided to Valcor, suppliers must not make any changes to the product or processes used to make that product (including changes in any sub-tier suppliers or delegation to other supplier facilities), without Valcor approval. Furthermore, suppliers must notify Valcor of any changes in manufacturing location(s) and work with Valcor to develop a plan for approving the new manufacturing locations.

Valcor utilizes the Deviation/Change Request (DCR) process for communicating process, product, or service changes to Valcor. This process is covered in detail in section 6.10.

5.5 Sub-Tier Suppliers

Suppliers must ensure that all applicable Valcor purchase order requirements are properly flowed down to all sub-tier and special processing suppliers used in the production of the material provided to Valcor.

5.6 Quality Clauses

Suppliers must comply with all quality clauses listed on Valcor purchase orders. Suppliers must communicate any exception with a quality clause to Valcor Purchasing or Supplier Development personnel in writing.

5.7 Counterfeit Material Prevention

Suppliers are responsible for complying with all requirements related to counterfeit material prevention. This includes all requirements contained within the *Valcor Standard Purchase Order Terms & Conditions* as well all requirements specific to the purchase order (e.g., contained within quality clauses).

When specified on a Valcor purchase order, the supplier must implement and maintain a counterfeit material prevention program (e.g., control plans, visual inspections, testing, or other processes) to ensure counterfeit material is not delivered. The program must meet the intent of SAE AS5553 and SAE AS6174. In addition, suppliers must provide certification of the origin of the materials being supplied (a copy of the original OEM certification to a distributor is acceptable).

If a supplier has been determined to be at risk for suspect counterfeit parts, the Supplier Development Group will assess the supplier's compliance based upon the risk level associated with the part. Suppliers must provide Valcor with evidence of their counterfeit material program to Valcor upon request.

5.8 Right of Access

Suppliers must provide Valcor, Valcor's customers, and all regulatory agencies with reasonable access to all applicable areas of the supplier's facilities involved in fulfilling Valcor purchase order requirements. This applies to any level of the supply chain and includes all related supplier records.

With prior notice and coordination, Valcor has the right to conduct surveys, audits, inspections, and facility surveillance at suppliers (as well as any sub-tier suppliers).

5.9 Customer/Government Source Inspection (CSI/GSI)

Some Valcor items require customer source inspection (CSI) and/or government source inspection (GSI). These requirements will be noted on the Valcor purchase order.

Suppliers must ensure that product is not released before completion of CSI/GSI.

5.10 Supplier Contributions & Ethical Behavior

Suppliers must ensure that all employees are aware of: a) their contribution to product or service conformity, b) their contribution to product safety, and c) the importance of ethical behavior.

Valcor reserves the right to request objective evidence of the foregoing requirement.

5.11 Record Retention

Suppliers must retain all records relating to Valcor purchase orders for a minimum of fifteen (15) years unless otherwise specified on a Valcor contract or purchase order. The disposition of such records must be controlled per the supplier's applicable QMS requirements.

Suppliers must make all applicable records available to Valcor upon request.

5.12 Import/Export Compliance

The products, technical data, and services produced and/or provided by Valcor Engineering Corporation may be subject to the provisions of the Export Administration Act of 1979 (50 USC 2401-2420), the Export Administration Regulations promulgated thereunder (15 CFR 730-774), and the International Traffic in Arms Regulations (22 CFR 120-130).

These statutes and regulations impose restrictions on the import, export, re-export, and transfer to third countries of certain categories of hardware, data, technical services, and information, and that licenses from the U. S. Department of State and/or the U.S. Department of Commerce may be required before such hardware, data, technical services, and information can be provided/disclosed hereunder, and that such licenses may impose further restrictions on use and further disclosure of such data, technical services and information.

Disclosure of data, technical services, and information to foreign persons, as defined at ITAR 120.16, and at EAR 734.2(b), is subject to the above regulations regardless of if the export occurs in the U.S. or abroad. Violations of these export laws are subject to severe criminal penalties.

6 Supplier Quality Processes & Expectations

6.1 Becoming a Valcor Supplier

Potential *new* suppliers must submit the following to Valcor's Supplier Development Group (SupplierDevelopment@Valcor.com) for further consideration:

- Valcor **Supplier Quality Survey Form (Form# SF1016A)**
- Copies of relevant **Quality Management System (QMS) Certificates** (Reference section 6.2)

Valcor's Supplier Development Manager and Supply Chain Manager will evaluate the Supplier Quality Survey and QMS certificates, as well as the supplier's technical capabilities, to assess the supplier's ability to meet all Valcor requirements. Suppliers that pass this evaluation phase will be requested to submit the following additional documentation:

- Copy of **Supplier Quality Manual**
- Fully executed **Non-Disclosure Agreement (NDA)**
- Current **Form W-9, Request for Taxpayer Identification Number and Certification**

Valcor's Quality Director will review all documentation and provide final approval. Upon final approval, the Supplier Development Group will communicate to the supplier, designate the supplier as "Approved" in Valcor's business system, and add the supplier to Valcor's Approved Supplier List.

6.2 Quality Management System (QMS)

Suppliers must develop, document, implement, and maintain a quality management system (QMS) that ensures compliance with all Valcor purchasing requirements. The QMS must comply with the most current revision of AS9100, ISO9001, or another comparable quality system. Suppliers holding QMS certifications must provide updated certificates to Valcor upon request.

Suppliers providing "special processing" services to Valcor (i.e., welding, plating, heat treatment, etc.) should maintain NADCAP certification for the relevant processes. Suppliers must provide updated certificates to Valcor upon request.

In the absence of QMS certifications (AS, ISO, or NADCAP), suppliers may submit a written QMS to Valcor for approval. Uncertified quality management systems will be subject to further evaluation by Valcor personnel. Suppliers may also be required to re-submit the **Valcor Supplier Quality Survey Form (Form# SF1016A)** upon request, typically on a 3-year cycle.

6.3 QMS Audits by Valcor Personnel

A supplier's QMS is subject to an audit (either on-site or remote) by Valcor personnel at any time, with a minimum of 24 hours' notice. A member of Valcor's Supplier Development Group will typically lead the audit.

Valcor may require a QMS audit in the following instances:

- Approval of suppliers that do not maintain formal QMS certifications (as noted in section 6.2)
- Qualification of suppliers of critical or high-risk Valcor products (at the discretion of the Supplier Development Group)
- Qualification of suppliers to participate in PPAP, source inspection, or delegated self-release programs
- Verification of corrective & preventative actions in response to Supplier Corrective Action Requests (SCARs) or other significant supplier quality issues
- Other instances, at the discretion of the Supplier Development Group

Valcor's Supplier Development Group typically schedules and completes audits, communicates audit results to suppliers, executes Supplier Corrective Action Requests (SCARs) in response to audit findings, and works with suppliers to comply with all audit and SCAR requirements. A follow-up audit may be required to confirm the resolution of any findings from the initial audit.

6.4 Maintaining Approval Status

Continued status as an approved Valcor supplier is contingent upon the following:

- Maintenance of initially approved QMS (Reference sections 6.1 and 6.2)
- Acceptable supplier quality performance (Reference section 6.5)

Valcor typically re-evaluates suppliers on a three (3) year cycle. When formal QMS certifications were used for initial approval but have since expired, the supplier must submit current copies to Valcor upon request. When standard QMS certifications are not available, Valcor's Supplier Development Group will otherwise coordinate and conduct an auxiliary evaluation of the supplier.

6.5 Supplier Rating System

Valcor expects suppliers to make every reasonable effort to achieve and maintain acceptable quality and delivery performance. Valcor's Supplier Development Group manages and maintains quality and delivery data for all suppliers, including supplier scorecards.

Supplier scorecards summarize a supplier's recent quality and delivery performance, as well as top contributions to each score. These scorecards are communicated quarterly to the supplier (at a minimum) and are available at any time upon request.

Supplier quality performance is calculated as:

$$Supplier\ Quality\ Score = \frac{Total\ Lots\ Received - \sum(Lots\ Rejected) \times (DMR\ Charge)}{Total\ Lots\ Received} \times 100\%$$

- NOTE: A DMR Charge is assigned for each MRR/DMR (see section 6.8) by the Supplier Development Group. The possible charges are 0%, 25%, 50%, 75%, or 100%, based on the severity of the nonconformance and the party at fault for the nonconformance.

Supplier delivery performance is calculated as:

$$Supplier\ Delivery\ Score = \frac{Lots\ On\ Time + Lots\ Early}{Total\ Lots\ Received} \times 100\%$$

- NOTE: "On Time," "Early," and "Late" lines are measured relative to the supplier's promised receipt date.

Table 1 summarizes Valcor's rating scale for measuring supplier quality and delivery performance.

Table 1: Valcor Supplier Quality and Delivery Rating Scale

Level	% Range	Grade
Preferred	95% - 100%	A
Acceptable	85% - 94%	B
Improvement Required	75% - 84%	C
Unacceptable	< 75%	F

Suppliers that fail to achieve "Acceptable" quality performance for two consecutive quarters will be expected to implement an immediate improvement plan. Valcor's Supplier Development Group may issue a Supplier Corrective Action Request (SCAR – reference section 6.9) to facilitate the improvement plan. Exceptions may be made for special cases (i.e., lower volume or infrequently used suppliers).

Suppliers that continuously fail to achieve "Acceptable" quality performance will not receive additional Valcor business and will be at risk of removal from Valcor's Approved Supplier List.

6.6 Valcor Owned & Supplied Material

Valcor expects suppliers to invest in packaging containers, inspection gages, tooling, and other supplementary items necessary to manufacture the product. When such an investment is not practical and these supplementary items are loaned to a supplier, the items remain property of Valcor. The supplier is responsible for maintaining the items, protecting the items from mishandling, damage, or loss, and promptly returning the items to Valcor after use.

When Valcor is providing raw material to a supplier, the material must not be used for any purpose other than to fulfill Valcor purchase orders.

6.7 Foreign Object Debris (F.O.D.) Prevention

When specified on a Valcor purchase order, suppliers are required to establish, document, and maintain a program to control and prevent foreign object debris (F.O.D.) during all manufacturing, assembly, test, inspection, and sub-tier supplier operations. The program should follow NAS412 or AS9146, or otherwise be submitted to Valcor for prior approval.

Suppliers must provide evidence of their F.O.D. prevention program to Valcor upon request.

6.8 Material Rejection Report (MRR) / Discrepant Material Report (DMR)

Valcor generates MRRs/DMRs to document material nonconformances. A nonconformance is defined as any discrepancy to the part or PO requirements related to packaging, documentation, and/or quality (defects in form/fit/function). Valcor's Material Review Board (MRB) will evaluate the nonconformance(s) and determine the disposition type and location. Potential dispositions include:

- Use As Is
- Rework at Supplier
- Rework at Valcor*
- Scrap at Supplier for Credit
- Scrap at Valcor

* Valcor reserves the right to debit suppliers for labor costs for internal rework.

If a nonconformance is determined to be the fault of a supplier, the MRRs/DMRs will reduce the supplier's quality score based on the severity of the nonconformance (see section 6.5).

Severe and/or repeat MRRs/DMRs may result in a Supplier Corrective Action Request (SCAR – see section 6.9). Note that even in the absence of a SCAR, suppliers are still expected to act in response to all MRRs/DMRs (e.g., remediation, containment, and/or correction activities, as necessary). Suppliers must provide evidence of such activities to Valcor upon request.

6.9 Supplier Corrective Action Request (SCAR)

A Supplier Corrective Action Request (SCAR) may be issued in response to severe or repeat nonconformances, at the discretion of the Supplier Development Group.

When a SCAR is issued, Valcor expects suppliers to:

- Complete containment activities within 72 hours of the SCAR notification.
- Provide a written response to the SCAR within 21 days of SCAR notification by completing the **Supplier Corrective Action Request Form (Form# SF1018A).**

Suppliers that fail to provide timely support and responsiveness to SCARs will be at risk of losing future Valcor business. If assistance is required to complete a SCAR, the supplier is responsible for requesting that assistance from the Supplier Development Group.

The written response must include a detailed root cause analysis and corrective action plan that demonstrates a systematic problem-solving approach:

- The root cause should be determined by using analytical tools such as 5 Whys, Pareto Analysis, Cause & Effect Analysis, "Fishbone" Diagrams, etc.
- Corrective actions should effectively eliminate the root cause and prevent the nonconformance from reoccurring. "Operator training" alone will not be considered an acceptable corrective action plan.

Suppliers are expected to complete all corrective actions by the assigned due dates on the SCAR record and must communicate any issues with meeting the assigned due dates to Valcor. Extensions will be approved in limited circumstances where the supplier has demonstrated progress toward completing the SCAR. Generally, all corrective actions should be completed within 90 days of the initiation of the SCAR; however, circumstances for some SCARs may dictate longer or shorter timelines.

SCARs will not be formally closed without successful verification. Suppliers must submit objective evidence (pictures, work instructions, procedures, manufacturing routers, etc.) as proof of corrective action implementation. Objective evidence may also be obtained via an on-site assessment by Supplier Development personnel. SCAR verification may also include successful inspection of follow-up shipments of parts impacted by the SCAR.

6.10 Deviation & Change Requests (DCR)

When suppliers have identified nonconforming parts or processes before shipment to Valcor, the supplier must complete and submit a formal *Deviation/Change Request Form* (Form# SF1019A) to Valcor for disposition (approval or rejection).

Suppliers *cannot* conduct Material Review Board activities or Use-As-Is dispositions on Valcor material unless given written authority. Additionally, suppliers should *never* knowingly ship nonconforming material to Valcor without receiving written approval from Valcor.

The *Deviation/Change Request Form* is also used when suppliers would like to propose a change to plans, drawings, designs, product definitions, specifications, or processes associated with Valcor parts.

The following sections on the Deviation/Change Request Form (SF1019A) must be completed:

- Supplier Information
- Part Information
- Description
- Deviation Request OR Change Request

Suppliers must send completed forms, along with any relevant test or inspection data, to the Supplier Development Group.

DCRs are reviewed and dispositioned by Valcor Engineering and Quality Assurance personnel. If the DCR is approved, the Supplier Development Group will inform the supplier of the disposition. The supplier should indicate the DCR number on their Certificate of Conformance and include an approved copy of the DCR form with the parts.

If the DCR is rejected, the Supplier Development Group will inform the supplier of the disposition and return the DCR form (including written justification from Valcor). The discrepant material and/or parts may not be shipped to Valcor unless noted on the completed form. The supplier is responsible for reworking or replacing the nonconforming parts to meet all Valcor specifications.

6.11 Certificate of Conformance (CoC)

Suppliers must provide a Certificate of Conformance (CoC) with each shipment. The CoC must include the following information at a minimum:

- Supplier name, address, and contact information
- Manufacturer name (if different from supplier)
- Valcor purchase order number
- Valcor part number
- Valcor part revision
- Quantity
- Lot number, or another unique batch identification number
- Any special processes or procedures performed
- Raw material description and lot number (if supplied by Valcor)
- Authorized quality representative signature, name, and title
- Date

6.12 Material / Mill Test Report (MTR)

Suppliers must provide a Material / Mill Test Report (MTR) with each shipment of metal components. The MTR must include the following information at a minimum:

- Name and address of the material supplier
- Description of material
- Material standards/specifications (ASME, ASTM, etc.)
- Material size/thickness
- Heat number or equivalent identifier
- Chemical properties (e.g., elemental compositions)
- Mechanical test properties
- Authorized supplier representative signature, name, and title
- Date

When additional special processes (i.e., passivation, heat treatment, plating, etc.) are specified, the supplier must provide certifications that include all related information specified on the Valcor drawing or purchase order.

6.13 Packaging

Suppliers are expected to package all products in a manner that protects the parts from damage and F.O.D. throughout the entire shipment process. Any damage to parts identified at Valcor (nicks, scratches, dents, etc.) will be cause for rejection.

Supplier packaging is, at a minimum, expected to:

- Package each item separately.
- Protect each item from contact and damage with other items.
- Secure each item from movement during shipment.
- Provide enough clearance between the item and the exterior packaging walls.
- Support the weight of all items and remain intact throughout shipment.
- Protect parts that are subject to corrosion (e.g., machined castings, forgings, etc.). Capping, anti-rust bagging/wrapping, and other coverings may be suitable for this purpose.

Bulk packaging is *only* acceptable for commercial-off-the-shelf (COTS) items (i.e., washers, nuts, screws, springs, helical inserts, etc.).

Appendix A specifies some examples of acceptable and unacceptable packaging practices. The Valcor purchase order or engineering drawing may specify additional packaging requirements.

6.14 Labeling

Suppliers must identify all boxes, crates, or containers shipped to Valcor with an identification label. The identification label must contain the following information, at a minimum:

- Valcor purchase order number
- Supplier name
- Box *X* of *Y*, when the shipment consists of multiple containers

Any carrier shipping labels must reference the Valcor purchase order number.

The Valcor purchase order or engineering drawing may specify additional labeling requirements.

6.15 First Article Inspection (FAI) Reports

When specified on a Valcor purchase order, suppliers must prepare and submit a first article inspection (FAI) report. The SAE AS9102 format is highly recommended, but alternative formats are acceptable with prior Valcor approval, (unless the Valcor purchase order explicitly defines the AS9102 format).

An FAI report may be required when any of the following events apply:

- A new part number to the supplier
- A lapse in delivery of two years or greater
- A change in manufacturing source, process, location, tooling, or materials that may potentially affect form, fit, or function
- A change in revision that may affect form, fit, or function
- A result of a SCAR or other major quality issue
- Other instances, at the discretion of the Supplier Development Group

The Supplier Development Group is responsible for reviewing FAI reports and providing stamped/written approval. The supplier must not ship additional quantities of the item until the initial FAI report is approved unless Valcor provides written authorization to the contrary.

6.16 Production Part Approval Process (PPAP)

When specified on a Valcor purchase order, suppliers must prepare and submit a Production Part Approval Process (PPAP) package. The SAE AS9145 format is highly recommended, but other formats may be submitted for Valcor approval. The PPAP package will generally include a first article inspection (FAI) report per section 6.15.

A PPAP package may be required when any of the following events apply:

- A new part number to the supplier
- A lapse in delivery of two years or greater
- A change in manufacturing source, process, location, tooling, or materials that may potentially affect form, fit, or function
- A change in revision that may affect form, fit, or function
- A result of a SCAR or other major quality issue
- Other instances, at the discretion of the Supplier Development Group

The Supplier Development Group is responsible for defining PPAP deliverables, approving supplier PPAP packages, and providing stamped/written approval. The supplier must not ship additional quantities of that item until the PPAP package is approved unless Valcor provides written authorization to the contrary.

6.17 Quality Data Package

When specified on a Valcor purchase order and before shipment, suppliers must prepare and submit a quality data package for approval to Valcor via email to the Supplier Development Group.

The specific quality data package requirements will be defined by the purchase order. A complete quality data package may include the following documentation:

a) Complete manufacturing traveler/routing/etc., detailing the manufacturing operations performed, each operator's acceptance signature and date, and inspection points (including related acceptance signatures and dates)

b) In-process and final inspection records (recorded actual critical & major characteristics)

c) Any other documentation required by the purchase order

d) Supplier's Certificate of Conformance

e) Purchaser's QA Work Release (if applicable)

f) DCMA Release after GSI (if applicable)

g) Weld Records (if applicable)

h) Test Reports

i) Material Test Report(s) (including weld filler materials, when applicable)

j) Shelf-Life Item Identification (if applicable)

k) Nondestructive Examination Reports (if applicable)

l) Radiographic Film with Technique Sheets and Reports

m) First article inspection report for dimensional and visual characteristics

n) Special process certification(s) (Nondestructive Examination, heat treat, welding, etc.)

o) Certificates of Calibration

p) Any documentation substantiating the quality of the hardware

q) Any documentation denoted as necessary by the Supplier Development Group

The Supplier Development Group is responsible for reviewing all quality data packages and providing stamped/written approval. The supplier must not ship the material until the quality data package is approved unless Valcor provides written authorization to the contrary.

6.18 Source Inspection

The Supplier Development Group may require source inspection for suppliers. These conditions may include but are not limited to:

- An alternative to incoming inspection at Valcor
- A decline in supplier performance
- Monitoring of a new supplier
- Qualification of a new part number
- A highly critical part
- Other instances at the discretion of the Supplier Development Group.

Source inspections may be on-site (physical) or remote (virtual). The Supplier Development Group is responsible for completing the source inspection and for reviewing and accepting/rejecting quality data packages. The supplier may not ship parts without stamped/written approval from Valcor.

- For on-site source inspections, the Supplier Development Group will schedule a visit to the supplier's facility (with a minimum of 24 hours notice) to witness all relevant portions of the source inspection and provide stamped/written approval for the shipment.
- For remote source inspections, the supplier will submit a quality data package per section 6.17 to the Supplier Development Group. The Supplier Development Group will review the data package and provide stamped/written approval for the shipment.

6.19 Receiving Inspection

All direct material shipped to Valcor is subject to receiving inspection, unless a source inspection (per section 6.18) has been completed, or unless otherwise defined by the Supplier Development Group.

Valcor encourages all suppliers to participate in activities that ultimately reduce the need for incoming inspection at Valcor, such as remote source inspection (section 6.18) or delegated self-release (section 6.21).

6.20 Inspection Sampling Plan

When the supplier's inspection processes are used in place of incoming inspection at Valcor (e.g., remote source inspection or delegated self-release), and unless otherwise specified by Valcor, the supplier's sampling plans must meet the following requirements:

- Dimensional data must be collected per a sampling plan that meets or exceeds the **Critical** sampling plan (e.g., the **Z1 or Zero Acceptance Number Sampling Plan**) listed in Valcor S1503. This applies to all dimensional features.
- Attribute data must be collected on the visual inspection of the entire lot for gross deficiencies (e.g., burrs, scratches, surface finish violations, part damage, etc.).

6.21 Delegated Self-Release

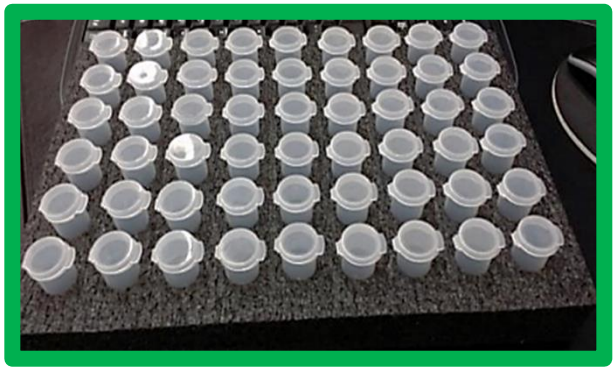
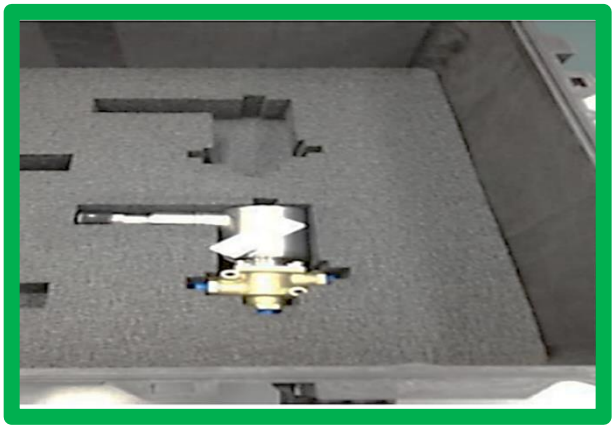
Suppliers demonstrating a history of exceptional quality performance may qualify for full delegated self-release, with no incoming inspection at Valcor. The Supplier Development Group will notify suppliers that qualify under this program and provide further instructions.

7 References

Form SF1016A	Valcor Supplier Quality Survey
Form SF1019A	Valcor Deviation/Change Request Form
Form SF1018A	Valcor Supplier Corrective Action Request Form
ASTM 2872	Standard Guide for Measurement System Analysis
ISO 9001	Quality Management Systems - Requirements
NAS-412	Foreign Object Damage / Foreign Object Debris (FOD) Prevention
SAE AS6174	Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel
SAE AS9100	Quality Management Systems – Requirements for Aviation, Space & Defense Organizations
SAE AS9102	First Article Inspection
SAE AS9103	Variation Management of Key Characteristics
SAE AS9145	Requirements for Advanced Product Quality Planning and Production Part Approval Process
SAE AS9146	Foreign Object Damage (FOD) Prevention Program - Requirements for Aviation, Space, and Defense Organizations
SAE J1739	Potential Failure Mode and Effects Analysis (pFMEA, dFMEA)

8 Appendix A – Acceptable and Unacceptable Packaging Examples

NOTE: The following table provides examples of good packaging practices; however, inclusion in this section does not guarantee the suitability of packaging for all Valcor applications. Valcor recommends that suppliers confirm packaging plans before the first shipment of a particular part.

	**ACCEPTABLE** – Parts individually packaged, cushioned from each other to prevent damage
	**ACCEPTABLE** – Sub-assembly/valves protected and cushioned from other components and external packaging walls
	**ACCEPTABLE** – Parts packaged in anti-corrosive bags

	**ACCEPTABLE** – Threaded part capped (to prevent internal threads and passageways from F.O.D. penetration), and individually bagged
	**UNACCEPTABLE** – Parts loosely boxed; not protected from damage from other parts or F.O.D. penetration; no clearance between parts and external packaging walls
	**UNACCEPTABLE** – Parts loosely boxed; not protected from damage from other parts or F.O.D. penetration
	**UNACCEPTABLE** – Parts not protected from corrosion/rust