PURCHASE ORDER

QUALITY TERMS and CONDITIONS

SANTIER PROCUREMENT QUALITY CLAUSES AND APPLICABILITY OF QUALITY CLAUSES
****QUALITY CLAUSES Q1 – Q7 and Q9 APPLY TO ALL PURCHASE ORDERS***
UNLESS OTHERWISE SPECIFIED ON THE PURCHASE ORDER*

Q1 – THE SUPPLIER SHALL IMPLEMENT AND MAINTAIN A QUALITY MANAGEMENT SYSTEM THAT COMPLIES WITH ISO 9001, AS9100 OR A QUALITY MANAGEMENT SYSTEM THAT:

1) Provides adequate inspection to verify that the product supplied is in full compliance with the purchase order requirements and all applicable specifications.

2) Maintains data required for a period of ten (10) years or as specified in the purchase order. Upon completion of all deliveries, the data shall be made available to SANTIER upon request.

3) Supplier will provide assurance that the revision levels of the specifications as denoted on the purchase order are used in manufacture and inspection.

4) Tools, gauges and test equipment used to meet the above requirements shall be calibrated at established intervals against standards with calibration traceable to the National Institute of Standards & Technology (NIST) or an internationally recognized metrology lab/standard.

5) SANTIER and its customers reserve the right to enter supplier's facility at any time during the manufacturing time related to the product on order for inspection/surveillance of processes, controls, and quality records. In the event of an inspections/surveillance, SANTIER shall coordinate times with supplier. Such inspection/surveillance will not constitute acceptance of the supplies/services being procured.

6) Discrepant material that departs from the specified requirements of the order and were rework to the specifications is not practical, the material in question shall be identified as discrepant and withheld pending buyer's disposition.

7) When the supplier's operation is certified by a third-party organization, the supplier shall provide a copy of the certification to SANTIER and shall keep SANTIER up to date as the certification changes or is renewed.

8) Ensuring that persons are aware of:

   a. Their contribution to product or service conformity.
   b. Their contribution to product safety.
   c. The importance of ethical behavior

Q2-CERTIFICATE OF CONFORMANCE (C OF C)
Material supplied on this purchase order (each shipment) shall be accompanied by a C of C, (In English) which must include the following information as a minimum:

1) Original manufacturer's and/or distributor's (or Service Provider's) name and address.
2) Purchase order number.
3) SANTIER part number, if purchased to a SANTIER drawing, revision, and quantity.
4) Serial number(s) or date code(s) or lot/batch number(s) as applicable.
5) Authorized signature, title, and date.
6) Statement of conformance to all requirements.
7) MIL-SPEC certifications **MUST** be supplied when MIL-SPEC parts are ordered.
8) All mechanical parts, housings, trays, covers, clamps, etc., **MUST** have material and plating certificates accompanying each shipment.
9) Copies of all material, processing, testing, chemical and physical analysis certifications must accompany each shipment of parts as required by the blueprint or applicable specification.

Q3-PACKAGING/HANDLING
All materials, parts and age controlled products must be protected against damage and corrosion during the manufacturing process through final delivery. Delivery of the product shall include the use of sound standard packaging practices. Special packaging instructions, when required, will be specified on the purchase order.

Upon receipt of damaged goods, supplier shall be notified and material returned for replacement or credit.

No parts shall be packaged in any form of Styrofoam containers unless it is an ESD foam packaging type.

Identification shall be accomplished by the manufacturers (OEM) Part Number and Name, Logo or Cage Code on the material item. If unable to mark because of size, marking shall be on the Tag, Box or container at the lowest level of packaging.

Q4-PACKING LISTS
Packing Lists **MUST** contain SANTIER Purchase Order number and Part Number as ordered as well as quantity shipped.

Q5-OBSOLETE BLUEPRINTS
The supplier is responsible for destroying all obsolete drawings, blueprints, parts lists, Mylar's, engineering models, specifications and any other such proprietary documents prior to disposal. Any obsolete documentation that is retained for historic or traceability purposes shall be stored securely and shall be clearly marked "OBSOLETE".

Q6-DIGITAL PRODUCT DEFINITION

When Digital Product Definition (Electronic Media) is specified, the supplier shall:

- Secure such media in a way that only required personnel have access to the data. This may be achieved using password protected drives or file folders.
- Retain and maintain an unchanged copy of the original file, including the filename.
- Maintain a master list of each file received and the current revision status.
- If obsolete files are to be retained, they are filed in a separate folder that is clearly marked "OBSOLETE".
- Provide and maintain traceability to the original filename and revision status on all subsequent files used for manufacturing or product acceptance.
- Assure that all commercial off-the-shelf software is accurate and that production equipment is verifiable.
- Equipment that is used for product acceptance is calibrated according to company procedures.
- Measure, verify and accept any media that is used for product acceptance (note: the media can be produced on calibrated equipment).

Q7-NO CHANGES WITHOUT APPROVAL

(DOES NOT APPLY TO COMMERCIAL OFF THE SHELF EQUIPMENT (COTS) OR CUSTOMER/GOVERNMENT FURNISHED EQUIPMENT (CFE/GFE)

All communication, technical guidance and instructions having contractual impact shall be accomplished directly between the buyer and the supplier's authorized representative. NO contact or specification deviations shall be made without the written authorization of the SANTIER buyer. All communication must be in writing, and will then be noted on the SANTIER Purchase Order. Examples of changes in the manufacturing or service of items that require communication to the buyer include, but are not limited to:

1) Plant Relocation
2) Material Change
3) Equipment Relocation
4) Design Change
5) New Equipment
6) Name/Cage Code Change
7) Drawing Conflict
8) Sub-Tier Supplier Change

It is the supplier's responsibility to fully comply with all the instructions listed on the SANTIER Purchase Order. Lack of written approval shall not relieve the supplier of the responsibility to fully comply with all the requirements of the purchase order. The supplier shall not receive compensation in any form from SANTIER for unauthorized activity.

Q8-FIRST ARTICLE INSPECTION

For machined/stamped/manufactured components, the First Article Inspection is applicable on initial production by the supplier, a First Article Inspection (FAI) report is required for each dash number in accordance with AS9102. The inspection report shall indicate the actual measurement obtained for each characteristic listed on the drawing and SANTIER instructions (when specified on the purchase order). When repetitive dimensions are inspected (i.e. holes of the same size, web thickness of the same size, etc.) record actual measurement individually, and specify locations. A new FAI is required when a part has not been in production for a period of one years or more. Delta FAI's are also required for all changes with regard to the current FAI configuration.

For raw materials (such as Kovar, Stainless Steel, CuW, etc…), parts must meet PO specifications (ASTM, AMS, etc…) and/or other industry standard that is employed to make the product. Material Test Reports and Certification of Conformance is required.

Q9-PRODUCT ACCEPTANCE

SANTIER's acceptance of products or services does not preclude a subsequent rejection when a nonconforming condition is discovered at any time. This includes discovery by SANTIER's customer(s).

Q10-EXPORT CONTROLLED

One or more documents used on this Purchase Order contains Technical data as defined in 22CFR 120.10 of the International Traffic in Arms Regulations (ITAR) and is subject to the export control laws of the U.S. Government. Transfer of this data by any means to a foreign person, whether in the U.S. or abroad, without an export license or other approval from the U.S. Department of State, is strictly prohibited.

Q11-TEST AND INSPECTION DATA

Test and Inspection data demonstrating conformance to the requirements as specified in the SANTIER drawing or specification shall be generated by the supplier. A copy of the data shall accompany each shipment of material. All test and inspection data shall be maintained on file by the supplier, available for SANTIER review, for a period of ten years after final shipment of material against this Purchase Order. The test and inspection data shall include:

1) Original Manufacturer's or testing facility name.
2) SANTIER purchase order number.
3) SANTIER part number and revision.
4) Test/Inspection results, conditions, and parameters.
5) Quantity of parts tested.
6) Serial number(s), lot/batch/heat number(s) or date code(s) as applicable.
7) Date of test/inspection.
8) Authorized agent's name and position, or acceptance stamp and date.

Q12-RESOURCE MANAGEMENT

The supplier is responsible for providing the necessary resources to deliver products and services that

meet all SANTIER and customer requirements in accordance with the purchase order.

Q13-RESOURCE TRAINING

The supplier is responsible for providing trained and/or certified personnel for the manufacture and inspection of products and services used to satisfy the requirements of the purchase order.

Q14-SUPPLIER PROCESS

The supplier is responsible for implementing a process by which all of the purchase order requirements and the requirements as stated herein are reviewed prior to acceptance of the purchase order.

Q15-SUPPLIER OWN MATERIAL AND TOOLS

The supplier is responsible for maintaining control of all SANTIER supplied material, gauges and tooling. Any such material that is lost, damaged or otherwise unsuitable for use shall be immediately reported to the buyer. SANTIER retains ownership of all supplied material and equipment regardless of how it is used or incorporated in the supplier's operation.

Q16-PRODUCT IDENTIFICATION

All delivered products shall be identified as required by the drawing or the applicable specification prior to release.

Q17-FOREIGN OBJECT DAMAGE (FOD) PREVENTION-QUALITY ASSURANCE

The Seller shall establish and maintain an effective Foreign Object Damage (FOD) Prevention Program to reduce FOD using NAS412 as a guideline.

The Sellers program shall utilize effective FOD prevention practices. The program shall be proportional to the sensitivity of the design of the product(s) to FOD, as well as, to the FOD generation potential of the manufacturing methods.

The written procedures or policies developed by the Seller shall be subject to the review and audit by the Buyer and/or government representative and disapproval when the Seller's procedures or policies do not accomplish their objectives.

Q18-100% INSPECTION

One hundred percent inspection of all characteristics is required. Use of sampling plans for inspection is prohibited without SANTIER's prior approval.

Q19-INSPECTION STATUS

The inspection status of all products shall be clearly identified throughout the manufacturing process and upon delivery to SANTIER.

Q20-KEY CHARACTERISTIC REQUIREMENT

If a key characteristic is required by engineering documents or SANTIER fabrication instructions, the following requirements apply:

- All key characteristics shall be placed under statistical process control.
- If the supplier does not have the ability to perform as stated above, contact the buyer immediately, prior to continuing with the purchase order requirements.
- At any time, the supplier may request assistance from SANTIER when conducting SPC activities. Contact the buyer.
- Documentation requirements are per key characteristic:
    - The supplier will provide copies of SPC documentation with all parts delivered to SANTIER.
    - Documents required for each key characteristic shall be IX-MR or X bar R charts.
    - If 21 or more parts are listed on the control charts, then upper and lower control limits along with a CPK reading shall be indicated on the control chart.
    - All charts will be identified with date, part number, dash number, and the key characteristics.
    - The documentation requirements listed above are in addition to all other documentation required by the purchase order and engineering requirements.

Q21-PRODUCT TRACEABILITY

The supplier agrees to ensure that materials utilized in performance of this order, whether furnished by SANTIER or by the supplier, will be segregated and controlled to ensure traceability and prevent them from being intermingled with any other materials.

Q22-SUPPLIER INTERNAL AUDIT

The supplier shall implement a system of self-audits to verify the effectiveness of the quality system and process performance. These audits shall be conducted a minimum of once per year.

Q23-SUPPLIER NON-CONFORMANCE PROCESS

The supplier shall implement a system for controlling nonconforming product:

- The supplier shall immediately identify and segregate such product to prevent unintended use.
- The supplier must report any nonconforming condition to the buyer and SANTIER's Quality Assurance.
- The supplier must receive written disposition from SANTIER prior to delivery.

Q24-DISCREPENT MATERIAL REPORTING

The supplier shall immediately report to SANTIER any discrepancies that may affect product that has already been delivered, regardless of the date of discovery.

Q25-SUPPLIER CAR SYSTEM

The supplier shall implement a system of corrective action for discrepancies identified by the supplier, SANTIER or SANTIER's customers. When SANTIER requests a written corrective action, the supplier shall

document the root cause of the discrepancy, the immediate and permanent corrective actions taken and the effective date of the corrective action. SANTIER reserves the right to audit the effectiveness of the stated corrective action at the supplier's facility.

Q26-COUNTERFEIT MATERIAL AVOIDANCE PROCESS REQUIREMENTS

Seller's Risk Mitigation Seller shall maintain a Counterfeit Item risk mitigation process internally and with its suppliers using SAE AS5553 as a guide.

Seller shall immediately notify SANTIER with the pertinent facts, if the Seller becomes aware or suspects that items delivered in accordance with the SANTIER purchase order are or contain suspect or confirmed counterfeit items. When requested by SANTIER, Seller shall provide OCM/OEM documentation that authenticates traceability of the affected items to the applicable OCM/OEM.

Seller shall provide evidence of the Sellers risk mitigation process to the SANTIER buyer upon request. Seller shall purchase material directly from OEMs or OCMs or from Authorized Distributors of OEMs or OCMs and shall obtain approval from the SANTIER buyer if items required to satisfy this order cannot be procured from these sources. Seller shall present complete and compelling support for any request to procure from sources other than OEMs or OCMs or their Authorized Distributors and include in the request all actions completed to ensure the parts thus procured are not Counterfeit Items. The Sellers supporting documentation shall also include:

-Results of authentication test and analysis conducted
-Traceability with identification of all supply chain intermediaries wherever such traceability exists
-Identification of and traceability to the source for any remarked or resurfaced material

Seller is not authorized to deliver any item procured from sources other than OEMs or OCMs, or their Authorized Distributors without prior written authorization from the SANTIER buyer.

Seller shall flow down to, and ensure compliance with this requirement to lower tier suppliers providing items for delivery to SANTIER under this order Definitions: a)"Counterfeit Item" is defined to include, but is not limited to,

(i) an item that is an *illegal or unauthorized copy of substitute of an Original Equipment Manufacturer* ("OEM") or Original Component Manufacturer("OCM") item;

(ii) an item that does not *contain the proper external or internal materials or components required by the OEM or OCM or that is not constructed in accordance with OEM or OCM design, but is represented as such;*

(iii) an item or component there of that is used, refurbished or reclaimed but the Seller represents as being a new item;

(iv) an item that has not successfully passed all OEM or OCM required testing, verification, screening and quality control but that Seller represents as having met or passed such requirements; or

(v) an item with a label or other marking intended, or reasonably likely, to mislead a reasonable person into believing a non-OEM or OCM item is a genuine OEM or OCM item when it is not

"Authorized Distributor" is defined as a distributor with which the OEM has a contractual agreement to stock, repackage, sell and distribute its product lines. Authorized Distributors normally offer the product for sale with full manufacturer flow-through warranty.

Q27-PROCUREMENT LIMITED TO APPROVED SOURCES

This requirement is applicable to items purchased under a Source Control Drawing, Vendor Item Drawing, or other drawing that limits procurement to an approved manufacturer. The supplier must provide documented evidence of successful completion of qualification as an approved source, as listed on the drawing for the item, prior to acceptance of the Purchase order. If the supplier is a distributor, the distributor is limited to items manufactured by an approved source, and is responsible for providing documented evidence that the items being supplied meet this requirement. Only items manufactured by an approved source listed on the drawing are acceptable under this purchase order.

Q28-QUALITY SURVEILLANCE/INSPECTION/TEST BY BUYER AT SELLERS PLANT

Supplies and services ordered by this purchase order are subject to surveillance/inspection/test, at the buyer's discretion, by Buyer's Quality Representative at Seller's plant. Specific surveillance/inspection/test activities selected by the Buyer's Quality Representative may include review of all aspects of the production system, witnessing of processes, points of test, and in-process inspection/test as required to verify conformance to the purchase order.

Q29-PREFERENCE FOR DOMESTIC SPECIALTY METALS

This purchase order incorporates either the contract clause at:
DFARS 252.225-7014 Alt. I; or
DFARS 252.225-7014 Alt. I (Deviation); or
DFARS 252.225-7014 (Deviation No. 2006-O0004); or
DFARS 252.225-7014 Alt. I (Deviation No. 2006-O0004); or
DFARS 252.225-7014 (Deviation No. 2007-O0011); or
DFARS 252.225-7014 Alt. I (Deviation No. 2007-O0011); or
DFARS 252.225.7014 (Deviation No. 2008-O0002); or
DFARS 252.225-7014 Alt. I (Deviation No. 2008-O0002);

You must flow down that applicable clause above, to all of your vendors that supply any articles delivered under this purchase order that include specialty metals. All such clauses provide the same definition of specialty metals and prohibit SANTIER and all of its suppliers at every tier from incorporating specialty metals into military pars, components and/or end item deliverables unless the specialty metals have been smelted (the Deviation clauses add "or produced") in the United States, its outlying areas, or a qualifying country listed in DFARS 225.872-1

Q30-PURCHASING INFORMATION FLOWDOWN (AS9100)

Suppliers will flow down all applicable requirements of the Purchase Order to their suppliers to insure conformance with all Specifications, Drawings, AS9100 or other Quality systems requirements, Regulations, Public Laws and other requirements as may be specified in the Purchase Order.

Q31-SOURCE INSPECTION

The products or services specified on this purchase order requires SANTIER Source Inspection. This

Inspection shall occur at points agreed to by SANTIER. Supplier shall notify the buyer at least (5) days in advance of inspection and/or acceptance testing. Final acceptance of deliverable items shall be at SANTIER.

Q32-RECORDED SUPPLIER DATA

The supplier is to provide data with each shipment in accordance with the following requirements. The supplier is required to notify and receive written authorization from SANTIER, if deviations from the following criteria are desired, i.e. sampling, etc.

1) The supplier will perform and record the results of mechanical and/or electrical test in accordance with the final acceptance criteria as specified in the applicable specification/drawing, unless otherwise specified in the purchase order.
2) When final acceptance is not defined in the controlling documents, the supplier will perform and record results of the mechanical and/or electrical tests that are considered part of the supplier's acceptance criteria.
3) Variable data shall be utilized for 100% of the end item acceptance parameters within a specification or drawing or that are considered part of the supplier's acceptance criteria. Attribute data shall only be utilized for appropriate notes and to identify the condition.
4) When specified in the purchase order, use of critical control characteristics as part of an approved VRP/SPC Control Plan may be substituted for the 100% variable/attributes data VRP/SPC Control should be compliant to AS9103.
5) Recorded data shall be traceable to 100% of the parts inspected/tested. Traceability may be controlled through part serialization, tagging, or identification if individual unit packaging unless otherwise specified in the purchase order or drawing.
6) 100% of the lot shall be inspected and/or tested unless otherwise stated in the purchase order or drawing. When sampling is authorized, it shall be in accordance with ANSI/ASQ Z1.4 or other statistically based plan, with specific lot size, AQL, and sample size identified on each data sheet.

Q33-SHELF LIFE MATERIAL – REQUIRE 80% USEFUL LIFE REMAINING

If material is adversely affected by time, the container and/or certification shall be marked with the expiration date and the recommended storage conditions. Do not deliver material with less than 80% of the useful shelf life remaining.

Q34-GOVERNMENT SOURCE INSPECTION (GSI)

The products or services specified on this purchase order/subcontract require Government Source Inspections (GSI) prior to shipment from the supplier's facility. Upon receipt of this order, promptly notify the government representative who normally services the supplier's facility so appropriate planning for government inspection can be accomplished. All shipments on this PO/subcontract must be accompanied by objective evidence of government acceptance. The products or services specified may require Government Quality Assurance Surveillance. Therefore, prior to commencement of any special test, notify the government representative. The government representative is requested to verify by signature all reports of testing accomplished, verifying only those portions actually witnessed. Such verification shall signify concurrence with the recorded data, but not necessarily with conclusions derived there from.

Q35-REQUEST FOR ELECTRONIC COPY OF TEST DATA

Suppliers shall provide electronic (soft) of all test data requested. PDF readable format is preferred. Notify SANTIER if electronic copy of data cannot be met.

Q36-PROHIBITED MATERIALS SUPPLIES FURNISHED UNDER THIS CONTRACT OR PURCHASE ORDER SHALL NOT CONTAIN ANY OF THE FOLLOWING:

1. Pure Tin: Unalloyed tin or tin plate where tin is greater than 97% pure and the remainder is lead is prohibited. Tin with less than 97% tin and the remainder is lead is acceptable. Reflowed pure tin plating is not acceptable.
2. Cadmium: Pure Cadmium and high Cadmium alloys (>=15% Cadmium) are prohibited.
3. Zinc: Pure Zinc and high zinc alloys (>=15% Zinc) are prohibited.
4. Mercury: Pure mercury and high mercury alloys (>=15% Mercury) are prohibited.
5. Selenium: Pure selenium and high selenium alloys (>=15% Selenium) are prohibited.
6. Corrosive solder flux: Active rosin and organic acid fluxes are prohibited on "closed" surfaces such as a wire termination (stranded wire).
7. Magnesium: Pure magnesium or high magnesium alloys. Magnesium alloy may be acceptable with a maintained protective coating of Dow 17 or equivalent coating. Trace amount of Mg are acceptable in material systems such as Aluminum and Steel alloys.
8. Polyvinyl Chloride (PVC): No forms of PVC are acceptable.
9. Potting and foam formulations that is prone to reversion.
10. Polyurethane or silicone compounds that is prone to reversion.
11. Silicones that release acetic acid or other corrosive products during the cure process.
12. Cyanoacrylate bonding as primary adhesives. In-process bonding is acceptable provided an approved adhesive provides the primary bond support.
13. Graphite as filler for lubricants or grease.
14. Elastomeric materials that contact hydrazine except for F-E-332 for diaphragms and AF-E-411 for soft valve seats. Materials that have known compatibility by test, usage, or similarity are acceptable.
15. Silicone greases intended for thermal bonding for end-item design (not test).
16. Flammable materials that are not packaged to preclude accidental fire.
17. Honeycomb, metallic or non-metallic, except when perforated or vented.
18. Radioactive materials.
19. Silver-plated copper wire with less than 40 micro inches of silver plating.
20. Polymide (Kapton) insulated copper/copper alloy wire used in applications where the voltage is greater than 18 volts and where flexure, tight bend radii, physical or chemical damage, or abrasion could crack the insulation.
21. Teflon (tetrafluoroethylene-TFE) insulated hookup wire when not routed or protected to prevent cold flow.
22. Fluorinated Ethylene Propylene (FEP) tubing where it provides the sole insulation for a wire conductor and is routed or contacts adjacent metal conductors.

If any of these requirements are not met please provide the specific material and its percentage as applicable.