ULTRA MARITIME

EMS QUALITY CLAUSES

(SQAP 1006-6, F2, REV: N)

NOTE TO ALL SUPPLIERS: ALL CLAUSES ARE TO BE FLOWED DOWN TO THEIR SUPPLIERS

QC-1 EMS SUPPLIER'S GENERAL PURCHASE ORDER REQUIREMENTS

Right of Access:

- The supplier shall provide EMS, our customers and regulatory authorities' access to all facilities involved in this purchase order.
- Government inspection or release of product prior to shipment is not required unless you are otherwise notified. You will provide a copy of this order to your Government Representative upon their request.
- Items on this purchase order may require an in-process inspection by an authorized quality representative. This may include surveillance of the product, quality System, procedures, and facility. The supplier shall furnish, at no cost, the necessary facilities, equipment, supply data and perform tests as required by applicable drawings, specifications, and inspection instruction under surveillance by EMS. Final inspection of purchase material shall be performed at EMS.

A. **Supplier Responsibilities:** Supplier should provide and maintain a Quality System that is acceptable to EMS and the government which will assure that all supplies submitted to EMS for acceptance conform to the purchase order requirements whether manufactured, processed, or procured from sub-contractors or sub tier suppliers.

- Mil-I-45208
- Mil-Q-9858
- AS9100 (preferred)

Commercial Requirements: shall meet the characteristics of the commercial catalog items, conforming to the producer's own drawings, specifications, standards, and the quality assurance practices and be the same as offered for sale in the commercial market.

B. **Sub-tier Supplier Quality Requirements:** the supplier shall impose on sub-tier suppliers' Quality Assurance requirements comparable to those contained in this Purchase Order and the supplier shall assume responsibility for the quality of all procured material and workmanship. The supplier shall assure Buyer's and Buyer's customer right of entry into the sub-tier supplier's facility for the purpose of inspection and audit. The supplier shall include this clause in its purchase orders with sub-tier suppliers and require sub-tier suppliers to flow down this clause to lower-tier suppliers.

C. **Change of Product, Process, or MFG facility Location:** The supplier/manufacturer shall not implement any changes in design, materials, process, or control without prior written approval of EMS, where it controls the specifications and processes. The intent of this requirement is to ensure that all material supplied under this order will be homogeneous, and the performance reliability, and quality of the material is not degraded. Changed articles shall be clearly identified and in a different manner from previous articles. EMS is to be notified of any change in location of mfg. facility or change in ownership.

D. **Material Conformance:** Supplier agrees that material supplied on this Purchase Order conforms in every respect to applicable manufacturer and/or military specifications. Evidence of conformance to applicable specification shall be supplied, such as material certifications.

E. **Receiving Inspection:** Purchased supplies shall be subjected to inspection after receipt, to assure conformance to purchase order requirements.

F. **Inspection and Testing Documents:** Inspection and testing shall be prescribed with clear, complete, and current instructions. The instructions shall assure inspection and test of materials, work in process and completed articles, as required, by the item specification and the purchase order. Criteria for approval and rejection of product shall be included.

G. **Nonconforming Material:** The supplier shall establish and maintain an effective system for controlling all nonconforming material, including procedure for identification, segregation, presentation, and disposition of reworked or scrapped supplies.

The supplier is not authorized to perform material review action of nonconforming material with the intent of delivering such material without the express written permission form EMS. Disposition of any departures from drawings, specifications or other Purchase order requirements must be approved, in writing, by EMS prior to shipment.

If there are any potentially nonconforming items shipped, EMS must be notified within 24 hrs.

H. **Root Cause and Corrective Action:** The supplier shall take prompt action to correct assignable conditions which have resulted or could result in the submission to EMS of supplies which do not conform to:

- The quality assurance provisions of the item specification
- Inspections and tests required by the purchase order
- Other inspections and tests required to substantiate product conformance

Supplier corrective actions (CAR) issued by EMS when a formal corrective action is essential, shall be given priority to analysis of cause and proposed corrective action. It is mandatory that replies be received within the period indicated on the CAR.

All material rejected by EMS and subsequently resubmitted by the supplier shall bear adequate identification of such resubmission, either with the material or on the supplier's documentation accompanying shipments. Returned material must be accompanied by a new packing slip and certification of conformance referencing the Discrepant Material Report.

I. **Configuration Control & Changes:** The supplier's inspection system shall provide for procedures which will assure that the latest applicable drawings, specifications, and instructions required by the purchase order are used for procurements, fabrication, inspection, and testing. The supplier shall ensure they have the revision of the drawing that matches the revision noted on the Purchase Order. If any item on this PO is controlled by a drawing that lists or references a parts List, the supplier shall ensure they have the revision in effect for the date of the PO. In the event the supplies do not have the correct drawings or parts list revision, they are to immediately notify the buyer listed on the PO. The supplier shall accept changes in the revision status of any drawing by means of a formal Purchase Order Change. The supplier shall not accept changes either verbally or via e-mail from anyone other than a buyer. If an item on this PO invokes, via reference, a mil spec, standard, or other revision-controlled document, the revision in effect as of the date of this PO.

J. CERTIFICATE OF CONFORMANCE (C OF C)

The supplier shall submit with each shipment, a written statement signed with a wet signature and/or a secure electronic signature by an authorized representative certifying that items provided are in accordance with specified requirements and stating that the manufacturer has objective evidence of compliance to applicable specifications on file, traceable to the material supplied and available for review upon request.

The C of C shall include the following:

- Supplier's name
- Supplier's physical address (including country of manufacture)
- Customer's name
- PO and line-item number
- Part number
- Part name (as identified on the print)
- Part revision level
- Quantity of parts shipped
- Name and Signature of authorized representative
- **ALL MATERIAL CERTIFICATIONS MUST ACCOMPANY THE PRODUCT**

When providing shipments of raw material, seller shall include with the C of C the applicable material test/mill reports.

NOTE: Signatures are required. Digital signatures are not permitted.

K. CONTROL OF RECORDS

The supplier shall retain production documentation and quality records for a period of 10 years. This documentation shall include all material certifications, work orders, special process certifications, test reports, inspection records, and shipping documentation.

The supplier is responsible for ensuring that records remain legible, readily identifiable, and retrievable.

Unless otherwise specified, all documents used to demonstrate product conformance must be provided in English.

L. FOREIGN Object Debris/Damage (FOD)

When applicable, supplier's FOD prevention program shall include:

- The review of design and manufacturing processed to identify and eliminate foreign object entrapment areas and paths through with foreign objects can migrate.
- Supplier shall employ appropriate housekeeping practices to ensure timely removal of residue/debris, if any, generated during the manufacturing operations or tasks.

- Supplier shall determine if sensitive areas that may have a high probability for introduction of foreign objects should have special emphasis controls, I place appropriate for the manufacturing environment.

M. **E.S.D. SENSITIVE DEVICES:** The supplier is required to clearly mark the containers of all parts known or suspected of being sensitive to static charges. Conductor carriers shall be used for the transporting, storing, and shipping of static sensitive devices. Package marking shall be in accordance with Mil-STD-129.

N. **RESOURCE MANAGEMENT:** The supplier shall have a process to identify and perform training for all personnel who directly or indirectly affect product quality. The supplier shall maintain records of this training. These records shall be made available for review upon request.

O. SUPPLIER CHANGE REQUEST/NOTIFICATION FOR EMS APPROVAL

All communication, technical guidance and instruction having contractual impact shall be accomplished directly between an EMS and the supplier's authorized representative.

It is the supplier's responsibility to fully comply with all the instructions listed on the EMS 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 EMS for unauthorized activity.

P. COUNTERFEIT MATERIAL AVOIDANCE PROCESS:

- **GUARANTEE OF PRODUCT SOURCES(S):** the supplier shall ensure that only new and authentic materials are used in products delivered. The supplier may only purchase parts directly from Original Component Manufacturers (OCMs), OCM franchised distributors, or authorized aftermarket manufacturers. Use of product that was not provided by these sources are not authorized unless first approved in writing by EMS. The supplier must present compelling support for its request (e.g.: OCM documentation that authenticates traceability of the parts to the OCM) and include in its request all actions to ensure the parts thus procured are authentic/conforming parts.

- **Supplier Chain Traceability:** The supplier shall maintain a method of them traceability that ensures tracking of the supply chain back to the manufacturer of all electrical, electronic, and electromechanical (EEE) parts included in assemblies and subassemblies being delivered per this order. This traceability method shall clearly identify the name and location of all the supply chain intermediaries from the manufacturer to the direct source of the product from the seller and shall include the manufacturer's batch identification for the items such as date codes, lot codes, serialization, or other batch identifications.

- **Product Impoundment and Financial Responsibility:** If counterfeit parts are furnished under this purchase agreement, such items shall be impounded. The supplier shall promptly replace such items with items acceptable to EMS and the supplier may be liable for all costs related to impoundment removal and replacement. EMS may turn such items over to the US Government authorities (Office of Inspector General, Defense Criminal Investigative Service, Federal Bureau of Investigation, etc.) for investigation and reserves the right to withhold payment for the items pending the results of the investigation.

Q. **CONFLICT MINERALS:** Requires all products supplied on this purchase order to be with in compliance with and, as such, supplier warrants that no product supplied on this order contains any “conflict minerals” as stipulated in Dodd-Frank Bill that are mined in Democratic Republic of Congo or adjoining countries.

R. **PRESERVATON, PACKAGING, & SHIPPING:**

- When a blueprint, specification or Purchase Order lacks preservation, packaging, and shipping instructions, it shall be the Supplier’s responsibility to maintain adequate control of packaging to ensure the quality of the fabricated article is maintained and that damage, deterioration, substitution, and loss in transit are prevented.

- Shipments of multiple containers should have each container identified as follows: 1 of 3, 2 of 3, 3 of 3, etc. All shipping documents, certification test and inspection records, etc., shall be placed in box #1 or in an attached envelope. The box shall be clearly marked with packing slip, certifications, test reports, etc., enclosed.

S. **MERCURY, BERYLLIUM, LITHIUM, AND CADMIUM FREE CERTIFICATION:** The supplier shall provide a certificate stating the item(s) produced under this Purchase Order have not be fabricated or have come into contact with any mercury, mercury vapors, benzene, radioactive parts, paints, or components. Parts are also free of Beryllium, Lithium, or Cadmium.

T. **PURE TIN PROHIBITION:** The use of pure tin is prohibited as an undercoat and final finish both internally and externally for all products supplied to EMS. The tin content of any product supplied to EMS, including components, mounting hardware, soldered circuit boards and solder shall not exceed 97% by mass. Tin shall be alloyed by a minimum of 3% lead, by mass.

U. **EMS Furnished Inspection and/or Production Tooling:** The supplier is responsible for the production, calibration, and care, other than normal wear, of all inspection and/or tooling furnished or owned by EMS for the sole used in the performance of purchase order requirements. The tooling shall be subject to EMS surveillance or inspection upon notice and shall be returned in acceptable condition upon demand or at the end of the purchase order.

V. **AWARENESS OF MALPRACTICE PREVENTATION:**

- Suppliers are contractually obligated and expected to meet all purchase order requirements. Suppliers are required to inform their sub-tier suppliers.

- Suppliers and sub-tier suppliers shall be aware and vigilant for Malpractice and Fraud and falsification, as it affects contract compliance.

- It is the responsibility of all parties to avoid the slightest possibility or appearance of impropriety or malpractice and to report known or suspected occurrences to the proper authorities.

W. **CALIBRATION:** Shall one of the following requirements: ISO:1001.2, ISO 17025 OR ANSI/NCSL Z540.3. Calibration technicians shall have an annual eye examination on file. External suppliers shall have a minimum target of 95% reliability of items calibrated at the end of each calibration cycle.

X. **DFAR REQUIREMENTS:** All DFARs on the Purchase order are mandatory for all external suppliers including their sub-tiers.

Y. **SECURITY REQUIREMENTS**: Vendors and subtiers shall have a written plan for security awareness and for the protection and control of unclassified information. Vendor shall inform EMS of any cyber incidents.

Z. PRODUCT AWARENESS AND ETHICAL BEHAVIOR: Apply appropriate controls to your direct and sub tier external providers, to ensure that requirements are met. Ensure that persons are aware of their contribution to products and services., along with product safety and the importance of ethical behavior

QC-2 IDENTIFICATION OF LIMITED LIFE ITEMS

The supplier shall identify each item, package, or container of limited life material with the following:

- Manufacturer's date of mfg.
- Storage temperature
- Special handling conditions
- Manufacturers recommended shelf life
- Safety Data Sheets with each shipment

¾ shelf life must be remaining when received by EMS.

QC-3 FIRST ARTICLE REPORTS (AS9102)

First Article must be inspected and accepted by EMS Quality Assurance. The Sample lot of a first article will be inspected for compliance to applicable drawings, specification and for acceptable workmanship. It shall be identified by using tags or labels traceable to the parts. If required by purchase order, the first article shall be performed IAW AS9102 using latest revision of form AS9102. The supplier must list all drawing dimensions, locations, and tolerances along with the actual measurements as defined by the drawing. The completed AS9102 forms must accompany the shipment of parts.

QC-4 FIRST PIECES FOR SPECIALTY MADE PARTS (EMS PART NUMBER ITEMS)

- Specialty made parts for EMS require a first piece inspection at EMS for compliance.
- This is for new vendors or vendors making new parts never made before. This is for Purchase order Quantities of 5 or more.
- These parts must be tagged or identified after acceptance and maintained until the entire PO has been received of EMS. This is to ensure which item was inspected and accepted prior to completion of manufacturing.

QC-5 CONTRACTOR ASSEMBLY

PRINTED CIRCUITS BOARDS: ASSEMBLY AND CONFORMAL COATING:

- Boards are to be assembled and soldered per J-STD-001, Class3
- Assemblers and soldiers are to be certified to J-STD-001
- Conformal Coat per J-STD-001, Class 3.

- Suppliers shall observe all ESD procedures during assembly, soldering, coating, and packaging.

CABLE ASSEMBLIES:

- Assemblers are to be certified to IPC-620.
- Cables are to be assembled to IPC-620

QC-6 RAW MATERIAL

- Each shipment of material on this Purchase Order must be accompanied by a legible copy of actual reports of test performed in accordance with specification or Purchase order requirements, traceable to the material submitted. These reports must contain the signature and title of an authorized representative of the agency performing the test and must assure conformance to specification requirements. Domestic Specialty Metals shall meet DFARS 252.225-7014 alternate 1.
- Seller agrees that material supplied on this Purchase Order conforms in every respect to the applicable specifications. Note: Evidence of conformance shall be the material certification.
- Raw material used in manufacturing of sheet metal products shall have a validation process of test report accuracy. This shall include periodic scheduled retest on the various materials, performed on samples at an independent lab. A copy is to be retained at the vendor and a copy sent to EMS with a copy of the purchase order with the labs name and the EMS purchase order it relates to.

QC-7 SPECIAL PROCESS CERTIFICATION

- Each shipment of material on this Purchase Order must be accompanied by a legible and reproducible copy of a certification containing a written statement signed with a wet signature and/or a secure electronic signature and the title of an authorized representative performing the tests. Nadcap certified suppliers as required by contract/customer.

The certification shall include special process being used, such as:

- Soldering
- Heat treatment
- Magnetic particle testing
- Liquid honing
- Penetrate inspection.
- Radiographic inspection
- Surface preparation and treatment (ie. Plating, painting, etc.)
- Ultrasonic Inspection
- X-rays
- List of special processed accomplished including:
    - Description of Process Performed
    - Sources of process (outside process supplier)

When parts are serialized, the serial number must appear on the certification.

NOTE: Signatures are required. Digital signatures are not permitted.

QC-8 WELDING REQUIREMENTS

The supplier shall perform welding processes in accordance with the notes stated on our drawings in conjunction with the requirements described in this clause. In the event of a disagreement, the description of this clause will take precedence.

Supplier must submit relevant Welding Procedures Specifications (WPS) and Welding Performance Qualification (WPQ) to EMS Development Corporation for review prior to welding inspection. Any changes to the WPS must be approved by EMS Development Corporation prior to execution.

It is the Supplier's responsibility to submit certifications and/or re-recertifications of their WPQ to EMS Development Corporation upon expiration dates.

The Supplier shall adhere to the description of the Welding Procedure Specifications (WPS) and Welder Performance Qualification Test Records (WPQTR) for the Manual Gas Tungsten Arc Welding (GTAW) welding or Manual Gas Metal Arc Welding (GMAW) performed during the fabrication of the equipment enclosures and assemblies delivered to EMS Development Corporation.

- **Weld Note for Steel:** Welding shall be manual GTAW or GMAW commercial welding IAW AWS D1.1 for Type S-1 Steel.
- **Weld Note for Aluminum**: Welding shall be manual GTAW or GMAW commercial welding IAW AWS D1.2 for Type S-25 Aluminum.
- **Weld Note for Sheet Steel:** Welding shall be manual GTAW or GMAW commercial welding IAW AWS D1.3 for Type S-1 Sheet Steel.
- **Weld Note for Stainless Steel**: Welding shall be manual GTAW or GMAW commercial welding IAW D1.6 for Stainless Steel.
- **Inspection Criteria:** The inspection of welds for Steel, Aluminum and Stainless Steel shall be IAW the requirements of MIL-STD-2219 for Class C Welds.

AWS/MIL-SPEC	MATERIAL
AWS D1.1 MIL-STD-2219	Carbon Steel
AWS D1.2 MIL-STD-2219	Aluminum & Aluminum Alloys
AWS D1.3 MIL-STD-2219	Sheet Steel
AWS D1.6 MIL-STD-2219	Stainless Steel

Every shipment shall contain certifications to comply with the standards above as well as noted on our drawings.

QC-9 FUNCTIONAL TEST REPORTS & CERTIFICATION

Each shipment shall be accompanied by 2 legible and reproducible copies of actual test results identifiable with test parameters defined as operational, mechanical, electrical, etc., of materials submitted. These reports & certifications must contain the signature of an authorized representative of the agency performing test & must assure conformance to specification requirements.

QC-10 QUALIFIED PRODUCTS LIST (QPL OR QML) CERTIFICATION

(MIL PARTS)

The supplier shall include with each shipment a certified statement that the items on this Purchase order were product by a currently approved QPL or QML manufacturer. Indicate the name of the manufacturer. Material shipped from a distributor must be accompanied by a reproduced copy of the shipping document from the original manufacturer.

QC-11 DESTRUCTIVE PHYSICAL ANALYSIS (DPA)

A DPA examination results report in accordance with ANSI-EIA-469-C 1997 paragraph 5.2 shall be supplied by the capacitor mfg with each production lot of capacitors supplied on Purchase orders. This report should include as a minimum, the following:

- Pertinent identification data for part, lot, manufacturer, customer, and purchase order
- The results of the internal microscopic examination. The DPA samples shall be appropriately and adequately identified which shall include lot date code and an indication of serialization directly on the sample rings.
- The container for the SPA samples and all photographs should be identified with the flowing information as available and appropriate: customer name, customer part number, customer purchase order, lot date code and manufacturer.
- Photographs shall also have magnification and type illumination and serial number of part(s) photographed (ex: 300X, B.F., SN3).
- Evidence and results of Dielectric Breakdown Test, in accordance with MIL-PRF-28861, shall be supplied with each lot.

QC-12 QUALITY, SAFETY, ETHICAL AWARENESS

The items being procured under the terms of this purchase order may be used in the production of defense items. Adherence to all purchase order, drawings, specifications, work instructions, or SOW requirements is critical to assuring the reliability and safety of the end products. Your organization is responsible for ensuring that persons are competent, qualified, and aware of their contribution to product or service conformity, to product safety and the importance of ethical behavior. We expect all EMS suppliers to conduct business in compliance with all applicable laws and regulations, as well as maintain a high level of business ethics. EMS expects our partners in business to abide by Federal Acquisition Regulation 52.2003-13 Contractor Code of Business Ethics and to always conduct business in a fair and ethical manner.