Enviro Systems Inc

Quality Clauses

Green indicates changes for Rev M--- Section 100 added: Suppliers, including sub tier suppliers, shall have a system for notifying

Yellow indicate changes for Rev P - QC Clause 353 added "and or identified by Ace Thermal Systems"

Peach indicates changes for Rev Q - Added QC Clause 400, 4/1/2023

Rev R Clause 329 Added NADCAP Requirements for Special Processes (All other parts)

Rev T updated Clause 312 changed from 11 years to 12 years Required Record Retention

Rev U Clause 5, Updated definition of Material Cert (11/1/2026)

CERTIFICATE OF CONFORMITY

1	**CERTIFICATE OF CONFORMANCE-STANDARD** *On Production Materials with a Purchase Order, a Supplier Certificate of Conformance (COFC) is required on each shipment*. It must indicate PO number, Enviro part number, revision level, quantity, and applicable specifications. Supplier confirms and guarantees that all parts delivered are newly manufactured and meet all specifications and requirements specified in the purchase order or in referenced documents.
2	**CERTIFICATE OF CONFORMANCE-SPECIAL PROCESS FOR ENVIRO DRAWINGS ONLY** *A Supplier Certificate of Conformance (COFC) is required on each shipment & must indicate PO number*, Enviro part number, revision level, quantity, welding specification, plating or finish as per drawing and/or required specifications. The plating, finish (alodine, anodize, electropolish, paint, or nitride), heat treat, or weld specification must note the revision level of the specification. If the special process is out-sourced, the special process source must be approved in advance by Enviro and the sub-tier COFC must accompany the suppliers COFC. Special processes that are in-sourced, also, must be approved in advance by Enviro.
3	**CERTIFICATE OF CONFORMANCE-FLAMMABILITY** Certification of Conformance to applicable flammability requirements of FAR's shall accompany each shipment. Burn test Data required with shipment.
4	**CERTIFICATE OF CONFORMANCE-FABRICATED PRODUCTS** A Supplier Certificate of Conformance (COFC) is required on each shipment & must indicate PO number, Enviro part number, revision level, quantity, welding specification, pressure test requirements, plating or finish as per drawing and/or required specifications. If any raw material is specified on the Enviro Drawing a certification is required, and the lot or batch number of the raw material is to be included on the COFC; this provides written linkage between the raw material certification and the fabricated part.
5	**CERTIFICATE OF COMPLIANCE RAW MATERIAL CERTIFICATION** Materials used in the manufacture of supplied products shall conform to the material specification(s) identified on the applicable engineering drawing, purchase order, or design documentation. Substitution of materials or material specifications, including those claimed to be equivalent, is prohibited without prior written approval from Enviro Systems. Suppliers shall provide complete traceability from the delivered product to the original material manufacturer, including all applicable mill test reports, certificates of analysis, certificates of conformance, and distributor certifications necessary to maintain an unbroken chain of traceability. Certifications shall identify the applicable material specification and the heat, lot, batch, or other unique traceability identifier linking the material to the delivered product. Failure to provide acceptable material certification and traceability documentation may result in rejection of the product.
6	**CERTIFICATE OF COMPLIANCE- CALIBRATION** The supplier shall provide certification of calibration that indicates traceability to the National Institute of Science and Technology (NIST) per ANSI / NCSL Z540-1. Equipment used for calibration is referenced in the COFC with standard nomenclature, serial number, NIST report number and calibration date. The certificate shall include the Enviro Systems, Inc. purchase order number and environmental conditions at time of calibration. Out of tolerance conditions shall also be denoted. The Quality Manager or Designee of the supplier shall sign the certificate.
7	**CERTIFICATE OF COMPLIANCE-BURN IN** Parts to be screened by American Reliability per procedure listed in Alstom Spec GESI-267. Each shipment of parts to be accompanied by a Summary Report including Certificate of Compliance and Lot Traveler as defined in the applicable procedure, and a copy sent to Alstom Signaling, ATTN.: Standards, PO Box 20600, Rochester, NY 14602 or faxed to 585-783-2321.
8	**FAA FORM 8130-3 CERTIFICATION RETURN FOR REPAIR OR OVERHAUL** FAA form 8130-3 shall accompany parts that are being returned from the supplier for repair or overhaul.
9	**CERTIFICATE OF COMPLIANCE-CHEMICAL ANALYSIS AND PHYSICAL PROPERTIES** Products with this code must provide product manufacturer date, ship date, shelf life, if applicable and MSDS (material Safety Data Sheet) with each shipment.

10	**CERTIFICATE OF COMPLIANCE-BMS10-83 BOEING TEST ACCEPTANCE**
	BMS10-83 Standard Boeing Test Acceptance and the AKZO Certification must be provided with actual test reports.
11	**CERTIFICATE OF COMPLIANCE-SPEC D6-51377 REV E SEC.4.1B**
	COFC must state the material meets smoke and toxicity requirements of BOEING SPEC D6-51377 REV E SEC. 4.1B
12	**CERTIFICATE OF CONFORMANCE-HEAT TREAT**
	Each shipment shall be accompanied by a legible and reproducible copy of the detailed heat treatment cycle used. Details to include: drawing requirement, specification, date, time, temperature and quench method as applicable. Inspection reports must accompany the heat treat report. The report shall contain the signature and title of the authorized representative of the agency performing the tests and inspections.
13	**CERTIFICATE OF CONFORMANCE- MILL HEAT CONTROL/MILL CERTIFICATION/SERIALIZATION**
	• Assigned serial numbers must be consecutive within a mill heat.
	• All items covered by this Purchase Order shall be from the same mill heat.
	• Actual mill certification required.
	CERTIFICATE OF COMPLIANCE- CALIBRATION OF OEM EQUIPMENT
14	The supplier shall provide certification of calibration that indicates the original equipment manufacturer has calibrated the equipment to the OEM standards traceable to NIST standards. Most equipment manufacturers lack certification to ANSI / NCSL Z540-1 as they are not calibration laboratories, thus calibration to the OEM requirements by the OEM is acceptable. Equipment used for calibration is referenced in the COFC with standard nomenclature, serial number, NIST report number and calibration date. The certificate shall include the Enviro Systems, Inc. purchase order number and environmental conditions at time of calibration. Out of tolerance conditions shall also be denoted. The Quality Manager or Designee of the supplier shall sign the certificate.
SHIPPING, PACKAGING AND DELIVERY	
51	**SHIPPING INSTRUCTIONS- LABELING**
	Parts (or packaging around each part) must be individually marked, tagged or labeled with the Purchase Order and Enviro Part Number. Small parts can be packaged in appropriate containers, and each package must be labeled with the Purchase Order, Enviro Part Number and Quantity. Any labels attached directly to parts must be easily removed without leaving adhesive residue. This section does not apply to serialized parts which would have each part identified with a serial number.
52	**SHIPPING INSTRUCTIONS-PACKING PEANUTS OR LOOSE PACKING MATERIAL**
	No packing peanuts or any other loose packing material, such as shredded paper is allowed in shipping boxes.
53	**PACKAGING AND HANDLING-GENERAL REQUIREMENTS**
	In performance of the contract, the supplier shall assure that all articles are packaged in a manner and with materials necessary to prevent deterioration, corrosion or damage. Requirements for packaging shall consider conditions affecting the article while at the supplier's plant, transportation to destination and the expected conditions at the destination.
NON CONFORMING	
100	**SUPPLIER NON-CONFORMING MATERIALS**
	In the event a supplier has manufactured materials which are non-conforming to Enviro Systems purchase order requirements, supplier may request Enviro Systems Material Review of the non-conforming material(s) by submitting a Supplier Deviation Request Form (F06.01-08)citing the non-conforming condition and requesting Enviro's disposition and/or concurrence. The supplier may then complete the manufacturing cycle. Completed Supplier Deviation Request must accompany parts when shipped. Suppliers, including sub tier suppliers, shall have a system for notifying Enviro if a determination is made that suspect Non-conforming product, (NPC) has been released. This notification must occur within 24 hours (excluding weekends and holidays) of its discovery.
101	**ALL REWORK OF NON-CONFORMING MATERIALS MUST BE DOCUMENTED**
	A Non-Conforming Material Report (NMR) will accompany all returns to the supplier. Any suplier rework **MUST** be documented & a copy of the document **MUST** be sent with the return shipment. Enviro Systems, Inc. will perform an incoming inspection of the reworked components before acceptance of the shipment.

102	**CORRECTIVE ACTION** For a confirmed non-conforming complaint, the supplier agrees to perform 100% inspection of the non-conforming characteristic for the next three consecutive manufactured lots.
103	**CORRECTIVE ACTION** Supplier agrees to respond to the SCAR/SPAR in the time frame documented on the request, determine the root cause of the nonconformance, develop and implement plans of corrective action to prevent recurrence.
FINAL INSPECTION	
151	**FINAL INSPECTION** All items are subject to final inspection and acceptance upon receipt at Enviro Systems facility regardless of any prior inspection or test at supplier's facility
TEST DATA	
200	**TEST DATA-SUBMITTAL OF TEST DATA** The Supplier will supply with each lot of material shipped recorded functional test data. Such data shall apply to a normal sample, inspection level II, 1% AQL per MIL-STD-105E. Submitted data shall be traceable by serial number or other identification to the particular part(s) to which it applies.
201	**TEST DATA-ACCEPTANCE TEST DATA** Acceptance Test Data required with parts when received.
202	**TEST DATA-ACCEPTANCE TEST DATA** 100% functional testing is required for each shipment. COFC to indicate test was performed. For PCBs this applies only if test equipment is available and the drawing requires testing
203	**TEST DATA-ADHESION TEST** All preprocessed materials that are chemical filmed per MIL-C-5541 (Rev. E or higher) and primed per MIL-P-23377 (Rev. G or higher) which will have subsequent forming operations shall pass adhesion test per ASTM D522 Method A for flexibility and ASTM D2794 for impact at 60inch-pounds, using a 0.0625" diameter indenter with a minimum combined mass of the indenter and weight of 1045 grams. Prime thickness of production parts and test panels shall be between 0.4 – 0.9 mils. Three test articles of 2024 bare aluminum 0.032" thick shall be processed with each production run and tested for flexibility, adhesion, impact resistance and paint thickness. Questions concerning test should be directed to Enviro Systems, Inc. engineering.
204	**TEST DATA-CONDUCTIVITY TEST FOR MIL-C-5441 CLASS 3 ALODINE** Mil-DTD-81706 resistance testing data is to be supplied.
205	**TEST DATA-SAMPLE COMPONENTS** Sample components, such as coupons from castings, must be supplied in accordance with the notes on the drawing or purchase order.
FIRST ARTICLE	
251	**FIRST ARTICLE INSPECTION (FAI)** Supplier shall perform a first article inspection on a part from each first lot shipment to verify all engineering characteristics. First article inspection shall be recorded and shipped with parts.
252	**FIRST ARTICLE INSPECTION (FAI)** FAI report is required for each part number with the initial shipment to Enviro. FAI report shall include actual measured values of all dimensional and drawing note compliances for one sample part to support the drawing of C of C. Supplier FAI Form is acceptable.
253	**FIRST ARTICLE INSPECTION (FAI)** FAI report in accordance with AS-9102 is required for each part number with the initial shipment to Enviro. FAI report shall be on AS-9102 forms and include actual measured values of all dimensional and drawing note compliances for one sample part to support the drawing C of C. A full dimensional layout report required for one (1) piece. To be delivered with shipment.
	PRODUCTION FIRST ARTICLE REPORTS

254	Compliance to requirements shall be demonstrated by submitting a First Article Inspection Report with the first lot shipment of product and a delta FAI with the first lot shipment of each subsequent revision for those dimensions/conditions affected by the revision. Catalog parts are excluded; for catalog parts such as MS, NAS, AN, etc., A certificate of conformance to all purchase order requirements are required. First article inspection reports shall include serial numbers (when applicable), all dimensions, general notes, tolerance ranges, actual measurements and where physical testing is required, the results of the tests. First article parts shall be identified as "First Article" by paper tagging or any other suitable means of identification. Enviro Systems, Inc. recommends suppliers adopt AS9102 format as the foundation for their first article reporting.
	Additional first article inspection shall be performed when:
	· Either new manufacturing process or new methods are used that could affect compliance to the drawing requirements.
	· New, reworked or transferred tooling is in use.
	· A drawing revision affects the operation performed by the supplier.
	· A new supplier is contracted to manufacture the part.
	· As required by Enviro Systems, Inc.
	FIRST ARTICLE INSPECTION (FAI)
255	Compliance to requirements shall be demonstrated by submitting a First Article Inspection Report with the first lot shipment of product and a delta FAI with the first lot shipment of each subsequent revision for those dimensions/conditions affected by the revision. Catalog parts are excluded; for catalog parts such as MS, NAS, AN, etc., A certificate of conformance to all purchase order requirements are required. First article inspection reports shall include serial numbers (when applicable), all dimensions, general notes, tolerance ranges, actual measurements and where physical testing is required, the results of the tests. First article parts shall be identified as "First Article" by paper tagging or any other suitable means of identification. Enviro Systems, Inc. recommends suppliers adopt AS9102 format as the foundation for their first article reporting.
256	**FIRST ARTICLE INSPECTION (FAI) FOR CIRCUIT BOARDS** 1. IPC 6012/IPC 610 for class 2 or 3 which ever print requires. 2. Electrical Testing. 3. Bare board manufacturer Test Report. 4. Impedance Reports. (If Applicable) 5. 4. Micro section / Solderability Test Report. 6. Final FAI Report from Supplier. 7. Cleanliness Test report. (For Contamination)

FLOW DOWN REQUIREMENTS

300	**FLOW DOWN-CONFIGURATION MANAGEMENT OF ENVIRO DRAWINGS** Supplier shall notify Enviro's purchasing department: when engineering data in supplier's possession does not agree with the latest revision data reflected on P.O., and when additional specifications/drawings not listed on P.O. but required by controlling engineering data are needed. Required drawings for supplier subtiers must maintain configuration management of Enviro Drawings
301	**FLOW DOWN-CONFIGURATION MANAGEMENT OF SPECIAL PROCESSES** The plating, finish, heat treat or weld specification must be processed to the latest version of the specification noted in the purchase order or Enviro Systems drawing. A list of specifications is located at www.enviro-OK.com on the Enviro Systems portal. The supplier of special processes is to review this document on the Enviro Systems portal and verify the specification used to produce the Enviro part aligns with the revision level documented on the Enviro Systems portal. This revision level must be noted on the COFC (See Quality Clause 2)
	FLOW DOWN-GOVERNMENT SOURCE INSPECTION

302	The Government has the right to inspect and test all supplies called for by contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. Government source inspection may be required at Supplier/subcontractor plant prior to shipment. Upon receipt of this order please furnish a copy of the purchase order to your local DCAS representative. The Supplier/subcontractor shipping document must bear government source inspection stamp if the requirement is imposed.
303	**MANUFACTURING CONTROL** A system shall be employed for controlling, documenting and maintaining product quality levels through out the manufacturing process. No process shall be changed that affects fit form and function without written authorization.
304	**UNAUTHORIZED FACILITY CHANGES** During performance of the purchase order, Supplier shall give buyer written notice before relocation of any Production, Inspection or Processing Facilities or making any other CHANGES that may affect product quality.
305	**UNAUTHORIZED PRODUCT CHANGES OR SUBSTITUTIONS** Supplier shall not make any changes or substitutions of any products or services required by the applicable drawing, specification or document unless: A. Any Major (or Class 1 changes) that affect form, fit or function always requires prior approval by Enviro Systems before implementing. B. Any change will require prior approval by Enviro Systems before implementing. C. Minor Changes (or Class 2 changes) require notification to Enviro Systems before shipment.
306	**MIL-STD-1686 ESD CONTROL REQUIREMENTS** Supplier shall comply with requirements set forth in MIL-STD-1686 and/or JEDEC 108 during storage, handling and shipment. ESD sensitive items shall have an ESD warning label, this should be used to seal shielded bags when applicable.
307	**PROTECTION OF ELECTOSTATIC SENSITIVE DEVICES** All voltage sensitive devices &/or sub-assemblies & assemblies containing such devices shall be protected from static electricity & transient voltage in accordance with the requirements specified on the drawing or specification for which the devices are procured.
308	**SHELF LIFE-ELASTOMERS** Cure date, shelf life, and/or manufacture date required with material when received. Parts must have at least 85% shelf life remaining when Enviro receives shipment.
309	**SHELF LIFE-CONSUMMABLES** Cure date, shelf life, and/or manufacture date required with material when received and have at least 85% shelf life remaining when Enviro receives shipment.
311	**NO 2000 OR 7000 SERIES ALUMINUM ALLOYS TO BE USED**
312	**SUPPLIER RECORDS (TWELVE YEARS)** Supplier shall retain all required records objectives evidence of conformance to the Purchase Order requirements. Required records including but are not limited to Certificates of Conformance, inspection data, training records, nonconforming material disposition, test data, & process flow sheets. These record are to be retained for a minimum of twelve (12) years.
313	**SUB-TIER CONTROL** The supplier shall be responsible for flow down of all the requirements and provisions of the Enviro Systems, Inc. purchase order applicable to the supplier's sub-contractors.
314	**FACILITY ACCESS** During the performance of any Enviro System, Inc. purchase order, the supplier's quality assurance or inspection and manufacturing process are subject to review and analysis by Enviro Systems, Inc., our customer and/or government representative. This requirement is applicable to the supplier's facilities where Enviro Systems, Inc. products and services are processed as well as the supplier's sub-tier facilities.
	DOMESTIC MATERIAL

315	When specified by purchase order requirements or imposed by DFARS 252.225, all raw material incorporated into the delivered item must be manufactured in the United States, its outlying territories or by specific qualifying countries as defined in the DFARS 252.225-7002. Stainless steels are covered under DFARS 252.225-7008 (Restriction on Acquisition of Specialty Metals)
317	**ELECTRONIC COMPONENT OBSOLESCENCE** Suppliers of electronic circuit boards are to notify Enviro Systems if any component used for Enviro assemblies is becoming obsolete. Immediate notice is critical for selecting substitute components or redesigning circuit boards.
318	**COUNTRY OF ORIGIN FOR METALLIC RAW MATERIALS** The metallic raw materials (plate, sheet, bar, rod, tube, etc) must be from a country that is listed in the FAA Bilateral Agreements in http://www.faa.gov/aircraft/air_cert/international/bilateral_agreements/baa_basa_listing
319	**FASTENER QUALITY ACT Public Law 101-592** Fasteners (6mm or 1/4" in diameter or larger) of high strength that are grade marked) must be provided in compliance with the FASTENER QUALITY ACT. The COFC must reflect compliance for any applicable fasteners.
320	**CHANGES TO DOCUMENTS** Corrections to work instructions or documents must be recorded, dated and signed (or initialled) in ink or other permanent marking method with the original data being legible and retrievable after the change.
321	**EYE EXAMINATIONS FOR INDIVIDUALS PERFORMING VISUAL INSPECTION** Supplier must verify annually that inspectors performing Visual Inspections are compliant with near vision requirements such as Snellen 14/18, (20/25), Jaegar 2 at 14 inches or Ortho-Rater 8
322	**VERBAL AGREEMENTS OR INSTRUCTIONS** Supplier shall under no circumstances interpret verbal agreements or instructions as approval or authorization to proceed. Electronic or paper confirmation of verbal information is required.
323	**Silver Plated Wire (MIL-W-22759 and MIL-W-168781)** Purchased wire spools must be sealed on the ends, the spools must be plastic, and each spool is to be sealed in a clear plastic bag with desicant. Each spool must be labeled with "WARNING MOISTURE DAMAGES WIRE-KEEP ENDS SEALED" or equivalent warning.
324	**Major or Minor (Class 1 or Class 2) Engineering Changes-Major Changes Require Approval Before Implementation, Minor Changes Require Notification Before Shipment.** The Supplier shall notify Enviro Systems of any engineering change to the Product as soon as the Supplier determines a change is required. The notification shall be submitted to Enviro's purchasing department using Enviro's Supplier Change Control Form or other form as agreed to by Enviro. For Class 1 or Major changes, those changes that effect the products form, fit, function, reliability, weight or performance, the Supplier must receive Enviro written approval prior to implementing the change. For all other changes, the change notification must be submitted prior to shipment of 1st product incorporating the change. If Enviro determines a change to be Class 1 or Major and it is not submitted as such, Enviro at its sole discretion can return the Products to the Supplier for credit.
325	**All Major or Minor (Class 1 or Class 2) Engineering Changes Require Approval Before Implementation** The Supplier shall notify Enviro Systems of any engineering change to the Product as soon as the Supplier determines a change is required. The notification shall be submitted to Enviro's purchasing department using Enviro's Supplier Change Control Form or other form as agreed to by Enviro. The Supplier must receive Enviro written approval prior to implementing the change. If Supplier provides products that incorporate unapproved changes, Enviro at its sole discretion, can return the Products to the Supplier for credit.
326	**Changes on Catalog Items** A system shall be employed for controlling, documenting and maintaining product quality levels through out the manufacturing process. No process or drawing change which effects form, fit or function shall be changed without written notification to Enviro Systems, prior to shipment.
	Conflict Materials per Dodd-Frank Act

327	Enviro Systems requires that all suppliers do not knowingly use any conflict materials (tin, gold, tantalum, tungsten) originating from the Democratic Republic of the Congo (DRC) or the neighboring countries. This requirement must flow down to the suppliers sub-tier suppliers. The supplier will notify Enviro Systems immediately if the supplier gains knowledge that material was supplied to Enviro Systems containing Conflict Materials. The notification must include the purchase order number, the part number and any traceability data available to the supplier.
328	**NADCAP Requirements for Special Processes** For all parts coded 1100XXX-XX, all of the following special processes must be performed by a NADCAP certified company for the following processes that are defined in the Enviro drawing.The special processes where NADCAP certification applies are: **Anodize per MIL-A-8625 Type II Class 2, Black** — **Dry Film Lub Per MIL-PRF-46010** **Heat Treat per AMS 2759** — **Passivate per AMS 2700 Type 2** **Chemical Conversion Coat per MIL-DTL-5541 Type II Class 3** — **Passivate per SAE-AMS-QQ-P-35** **Zinc Nickel Plate per AMS2417 Type 1** — **Welding AWS D17.1**
329	**NADCAP Requirements for Special Processes (All other parts)** Special processes musst be performed bby a NADCAP certified company. Special processes include: heat treat, chemical processing (i.e. anodizing, alodine, passivation, dry film), coatings (i.e. plating and painting), and welding.
TRACEABILITY	
351	**TRACEABILITY-PCB SERIAL NUMBERS**
	PCB serial numbers shall be in accordance with the drawing or identified to the purchase order in a method so a unique serial number on the PCB board can be traced to a specific purchase order number.
352	**TRACEABILITY-SERIAL NUMBERS** Parts must be individually marked or tagged with Unique Serial Number, not to be repeated for the life of the component.
353	**COUNTERFEIT COMPONENTS** All subcomponents of circuit boards and all subcomponents ordered individually must be purchased from the OEM, or a distributor that the OEM has authorized and or identified by Ace Thermal Systems which shall comply with the requirements of AS5553 for electronic components. All non-electronic products must be purchased from the OEM of the component or distributor that the OEM has authorized and products must comply with requirements of AS6174. Any components that are not from the OEM or their authorized distributor cannot be delivered without notice to Enviro Systems and approval by Enviro Systems in accordance with Quality Clause 100 SUPPLIER NON-CONFORMING MATERIALS
354	**TRACEABILITY-GENERAL REQUIREMENTS** Each subcomponent of an assembly must be traceable to the a defined lot of material. The material lot may consist of multiple purchase orders (for example if a work order of 50 pieces has a subcomponent and the 50 subcomponents came from two different purchase orders)
FOREIGN OBJECT DEBRIS (FOD)	
400	**FOD** Defined as any object, particle, substance, debris or agent that is not where it is supposed to be, and: In an aviation or similar environment, could create a hazard to aircraft, equipment, cargo, personnel or anything else of value is not permitted by any means.