

PURCHASE ORDER QUALITY CLAUSES

Only those quality control clauses identified on the face of the Textron Marine & Land (TM&LS) purchase order shall apply. When identified, the quality control clauses shall supersede conflicting provisions of the preprinted terms and conditions of the order.

200 SELLER QUALITY PROGRAM

The seller shall document, implement and maintain an effective quality system that satisfies the intent of ISO 9001:2000, Quality Management Systems – Requirements. Additional explanation of requirements is provided in the TMLS Supplier Quality Manual.

A Quality Control Manual and a copy of the 3rd party accreditation certificate, if available, shall be submitted to TM&LS, 1010 Gause Blvd., Slidell, LA 70458, attention PA Coordinator – Product Assurance Department, prior to the delivery of materials.

Changes to the QMS are to be communicated with TM&LS and are subject to audit to determine compliance to the ISO 9001:2000 standard. Compliance with the provisions of this clause in no way relieves the seller of the final responsibility of furnishing acceptable supplies and services as specified in the purchase document.

210 SELLER INSPECTION SYSTEM

The seller shall document, implement and maintain effective procedures that satisfy the intent of ISO 9001:2000, Quality Management Systems – Requirements elements:

- 4.2.4 Control of Records,
- 7.2.2 Review of Requirements Related to the Product,
- 7.4.3 Verification of purchased product,
- 7.5.1 Control of Production and Service Provision,
- 7.5.2 Validation of Processes for Production and Service Provision,
- 7.5.3 Identification and Traceability,
- 7.5.4 Customer Property,
- 7.5.5 Preservation of Product,
- 7.6 Control of Monitoring and Measuring Devices,
- 8.2.3 Monitoring and Measurement of Processes,
- 8.2.4 Monitoring and Measurement of Product,
- 8.3 Control of Nonconforming Product and
- 8.5.2 Corrective Action.

Additional explanation of requirements is provided in the TMLS Supplier Quality Manual.

If available, a Quality Control Manual and a copy of the 3rd party accreditation certificate are requested and should be submitted to TM&LS, 1010 Gause Blvd., Slidell, LA 70458, attention PA Coordinator – Product Assurance Department, prior to the delivery of materials.

Changes to the supplier's procedures impacting the areas identified are to be communicated with TM&LS and are

subject to audit to determine compliance to stated requirements. Compliance with the provisions of this clause in no way relieves the seller of the final responsibility of furnishing acceptable supplies and services as specified in the purchase document.

215 AQAP INSPECTION SYSTEM

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED.

220 RECORD RETENTION

Records and other objective evidence of inspection testing, assembly, processing, and fabrication shall be retained by the supplier for a minimum of 7 years after the completion of the contract unless otherwise specified. These records shall be identified and stored to enable the records to be readily located and retrieved.

230 ACCREDITED SUPPLIER PROGRAM

As of the date of this document, the Accredited Supplier Program has been discontinued. The requirements, as listed in TMLS 4156 - 06/08/07 Purchase Order Quality Clauses, are valid for existing purchase orders. This clause applies to all new purchase orders and to changes to an existing purchase order is issued on or after the date of this document.

240 LIMITED LIFE MATERIAL, ACCREDITATED SUPPLIER

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED.

250 HIGH STRENGTH FASTENER, ACCREDITATED SUPPLIER

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED.

300 SOURCE INSPECTION - GOVERNMENT

Government inspection is required prior to shipment from the supplier plant. Upon receipt of this order, a copy shall be promptly furnished to the Government representative who has delegate assignment from the appropriate authority for the TM&LS contract for which parts or materials are being purchased for. Evidence of Government inspection will be shown on the shipping document. In addition, the Supplier shall send a copy of the shipping document to TM&LS, 1010 Gause Blvd., Slidell, LA 70458, attention

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PA Coordinator – Product Assurance Department. During performance of this order, the supplier quality program or inspection system and manufacturing processes are subject to review, verification, and analysis by an authorized Government representative. The supplier shall provide a copy of this document to its Government representative upon the request of the representative.

350 TEXTRON MARINE & LAND SYSTEMS PRODUCT ASSURANCE REPRESENTATIVE

Textron Marine & Land Systems source inspection is required prior to shipment. The seller shall notify TM&LS PA Coordinator - Product Assurance 2 working days in advance of the time the items will be available for the source inspection designated. Approval authority by the Product Assurance representative is limited to granting approval for shipment of items on this purchase order from the seller facility.

The seller shall provide the Product Assurance representatives with free access to the facilities used under this contract for performing source inspection (ie, quality surveillance, inspections, examinations, or tests). The supplier shall furnish to the representative all information that the representative considers pertinent to the function being performed. When requested by the representative, the supplier shall provide the equipment necessary for the representative to perform the required inspections and examinations, present the items under conditions satisfactory to the representative for inspection and examination, and provide adequate office facilities for use by the representative. When the representative detects a quality program or product deficiency, a corrective action request may be transmitted to the supplier. The supplier is required to identify and correct the deficiency and the cause of the deficiency to minimize the probability of recurrence, and submit to Textron Marine & Land within a reasonable time a written response describing the cause of the deficiency, the action taken, and its effective date.

If the supplier's performance dips and it is deemed appropriate/necessary to impose source inspection, it will be conducted at the supplier's expense.

Evidence of source inspection, including applicable completed SMRR (Supplier Material Review Request), or source inspection waiver issued by TM&LS Product Assurance must accompany each applicable shipment unless prior arrangements have been made to electronically transmit the information. Supplier shall send a copy of the source inspection document, including applicable completed SMRR (Supplier Material Review Request), or source inspection waiver issued by TM&LS Product Assurance, to TM&LS, 1010 Gause Blvd., Slidell, LA 70458, attention PA Coordinator – Product Assurance Department. All items on this purchase order and all shipments are subject to final acceptance at destination in

accordance with the INSTRUCTIONS, TERMS, AND CONDITIONS section as provided with the purchase order.

352 SERVICEABLE CONDITION

On returned items, the supplier is required to use form (TMLS 5169). Form TMLS 5169 is located on the Textron and Marine Systems External page, http://www.textronmarineandland.com/contact/supplier_information.php

Returned items shall be reworked/repaired and: (1) inspected and cleaned to remove any foreign material internal to the unit; (2) pass acceptance test and/or inspection requirements; (3) be reconditioned so that corrosion is removed and corrosion protection, conformal coating, and sealing requirements are reinstated; (4) have cosmetic deficiencies, paint, labels, safety wire, etc, corrected in a good workmanship manner; (5) have all defective components replaced; (6) have the item returned to an original configuration; and (7) ensure that the required loose parts normally supplied with a new component are provided if specified on the purchase order. An acceptance test or inspection report signed by a responsible inspection/test person stating compliance to the specifics of this Quality Clause requirement along with reference to the TMLS Purchase Order and Part Number shall be returned with the item. The report supplied shall also include the nature of the failure, if able to determine, the specific rework required and completed in addition to a certification statement by the Seller attesting to the compliance with this Quality Clause and Purchase Order requirements.

If the returned part is replaced with a new part, the part shall: (1) pass acceptance test and/or inspection requirements; and (2) have the required loose parts normally supplied with a new component, if specified on the purchase order. An acceptance test or inspection report signed by a responsible inspection/test person stating compliance to the specifics of this Quality Clause requirement and Purchase Order requirements along with reference to the TMLS Purchase Order and Part Number shall be returned with the item. The report supplied shall also include the nature of the failure, if able to determine.

360 HOSE, TUBING and PIPE END PROTECTION

Open ends of hoses, tubing and pipe, with or without fittings, shall be sealed with plugs or caps that will provide protection against entry of foreign material. Alternatively, open ends of hoses and tubing, except hydraulic hoses, may be sealed with grease-proof barrier material conforming to type 1 of MIL-PRF-121. When used, barrier material shall extend a minimum of 4 inches over the open ends onto the body of the hoses or tubing. Barrier material shall be

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secured with a minimum 1-inch wide, water-resistant, pressure-sensitive tape.

Open ended materials must be sealed as defined above even if the materials are boxed, crated, on reels, etc, and/or protected or covered for shipment through some other means of covering.

400 SERIALIZATION

Parts and/or assemblies will be serialized. The supplier will assign a distinguishing serial number that is maintained throughout the life of the product and is not reassigned to another unit of the same part number. Assembly, test, and final acceptance records will be maintained by the serial number assigned.

402 TOOLING CONTROL

The supplier shall establish and maintain a system to ensure that manufacturing tooling is inspected, protected, and otherwise controlled according to specific conditions surrounding their use. Manufacturing tools, gauges, jigs, and fixtures used for measuring quality characteristics shall be checked for accuracy prior to initial use and at intervals thereafter, not to exceed 12 months, to ensure continued accuracy. The supplier shall maintain records of the inspection results, available to TM&LS upon request. Tooling shall be identified to indicate the date when re-inspection is to be accomplished. The supplier shall report to the contractor any contractor-furnished property found damaged, deteriorated, or otherwise unsuitable for use.

This clause being invoked on a part and purchase order does not mandate the use of tooling but is present because this may be a viable method of manufacture.

404 RAW MATERIAL VERIFICATION

The supplier shall inspect/test materials furnished by TM&LS or procured by the supplier on receipt to ensure material conformance to contract requirements prior to the start of operations.

406 TOOLING INSPECTION INSTRUCTIONS

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED.

408 RESUBMISSION OF REJECTED LOTS

All supplier-resubmitted lots must be identified as resubmitted material with reference made to the inspection or discrepancy report number that detailed the discrepancies of the rejected lot. The supplier will also present satisfactory evidence that the discrepancies have been corrected.

410 FAILURE ANALYSIS REPORT

The supplier shall perform a failure analysis on item(s) returned under this contract and shall provide, a minimum, the following information with the shipment or as directed by contract:

- * Date of report
- * Purchase order number
- * Vendor name and address
- * Part name, number, revision level, serial number
- * Nonconforming document serial number
- * Specific and contributory causes of failure
- * List of parts required to repair item(s)
- * Corrective action taken to preclude recurrence and effectivity by date or serial number of corrective action
- * Signature and title of supplier's quality representative approving the failure analysis report.

412 100 PERCENT DIMENSIONAL CONFORMANCE

The supplier shall perform 100 percent inspection and recording of variable (actuals) data for each piece of this order. The inspection record shall identify each characteristic, the allowable tolerance limits, and the actual dimension recorded. The report must also indicate the method of inspection, eg, layout averaging (how many places) and type of gauge (tri-mic, dial bore, vernier, etc). This record shall be submitted with each parts shipment and must show quality evidence that each characteristic has been inspected and accepted. If parts are not serialized, temporary serial numbers will be assigned and parts tagged.

414 ACCESS TO SUBCONTRACTORS

The supplier shall ensure contractor, prime contractor, and/or Government representative access to sub-tier supplier facilities for inspection system/quality program or product audit, surveillance, inspections, or tests upon request. Vendor will be responsible for conformance of all supplies or services procured from sub-tiers, and will ensure that the requirements of the purchase order, applicable drawings, and specifications are incumbent upon its procurement sources.

Documented evidence of sub-tier control shall be maintained.

416 CONFIGURATION, SPECIFICATION, DRAWING, AND PROCEDURE CONTROL

The supplier shall provide for and maintain a system for implementing configuration changes at established points of effectivity. The supplier is responsible for obtaining, implementing, and maintaining the current issue of all

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specifications, standards, procedures, and drawings or other contractual documents referenced by purchase order. The supplier shall communicate, in writing, all necessary specifications and contractual requirements to sub-tier suppliers.

418 SUPPLIER CATALOG ITEMS

Items supplied under the supplier's catalog number, which are not controlled by a federal or military specification, shall conform to the supplier's catalog description regarding limits of size, finish materials, component details, and performance. The supplier shall coordinate variation of departures from the catalog description with the contractor prior to delivery of such items to ensure configuration control. This coordination shall be in writing. Contractor approval shall also be in writing.

420 FIRST-ARTICLE INSPECTION/TEST

The first article produced on this purchase order is subject to first-article acceptance at the supplier facility prior to further manufacture of the same type of articles. If the first article submitted to a TM&LS representative fails to meet the inspection/test acceptance requirements, a new first article will be submitted for approval. This procedure shall be continued until an acceptable first article has been approved. First-article acceptance shall be based on the requirements of the drawings, specification, and purchase document as applicable. Acceptance of the first article shall not be considered acceptance of subsequent articles. The submission of a first article shall be accompanied by the as-built data recorded by the supplier and the tool number used to produce the article or articles. In the case of articles produced by molds, dies, etc, with more than one cavity, the seller shall submit a first article from each cavity and identify the first article to indicate the cavity it represents. The first article shall be manufactured in the same manner using the same type of equipment to be used in producing the production items it represents.

425 FIRST-ARTICLE CONFORMANCE REPORT (FACR)

Each initial shipment of hardware for a new Purchase Order requires the submittal of a completed FACR document covering all purchase order, print, process, and specification characteristics and requirements with the shipment. The FACR shall include the purchase order number, part number(s), process identification and reference to the requirement. All FACR submittals must be sent to TM&LS, 1010 Gause Blvd., Slidell, LA 70458, attention PA Coordinator – Product Assurance Department, prior to the initial receipt of the material at TM&LS. If these requirements were complied with on a previous order, a re-submittal of the FACR is not required providing that materials have been received by TM&LS within the previous

12 months and no changes in process/equipment, sub-tier suppliers and personnel have been implemented since the last first-article. In the event of any characteristics or requirements change, a new FACR is required. The report shall include engineering tolerances and show actual results/values of inspections and tests.

In the case of articles produced by molds, dies, etc, with more than one cavity, the vendor shall submit a first-article report from each cavity and identify the first article to indicate the cavity it represents.

The acceptable first article inspection piece produced by the supplier shall be identified as a Fit Check item and shipped to TM&LS for verification. If the shipment of a single fit check part is not a purchase order requirement (425b), the part inspected for the FACR may be shipped as part of an initial order. In all cases the fit check part must be identified.

Fit Check Identification can be accomplished by attaching a large tag/sign to the item in a very conspicuous location stating "Fit Check" or by using tags provided by TM&LS. If Clause 425a is invoked on a Purchase Order, the Fit Check part is NOT required to be identified and submitted to TM&LS for the "Fit Check" verification.

A copy of the Suppliers FACR shall be included with the shipment in addition to sending a copy to TM&LS as required by this Quality Clause.

a) When Clause 425a is invoked on a Purchase Order all of the requirements of Clause 425 are required with the exception that the Fit Check part is NOT required to be identified and submitted to TM&LS for the "Fit Check" verification.

b) When Clause 425b is invoked on a Purchase Order the fit check part will be shipped as a single item and no additional parts may be shipped without approval from TM&LS.

440 SPECIAL PROCESS PROCEDURE APPROVAL

Prior to performing any special process under this order, the Seller must submit their procedures to TM&LS, 1010 Gause Blvd., Slidell, LA 70458, attention PA Coordinator – Product Assurance Department. The Seller must also obtain written approval authorized by a TM&LS Quality Representative for Seller procedures and associated equipment as set forth in the applicable drawings, PO and PO Notes, specifications and standards prior to performing the required special process.

For welding, documents required are: Process Qualification Record (PQR), Weld Process Specification (WPS) and Welder Performance Test (WPT) or equivalent.

The Supplier shall also re-submit to TM&LS the required procedures/data if there are changes of personnel (if applicable), process parameters, manufacturing equipment (new or relocated equipment), any materials used in the

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process that have potential impact, changes to inspection / testing protocols, procedures (regardless of the reason for the update / change), with applicable certification status, and changes of subcontractors. It is the Supplier's responsibility to provide TM&LS with the latest version of procedures. TM&LS may call for a re-submittal to audit compliance to requirements.

When special processing operations are subcontracted, the Supplier shall be responsible for the management of the sub-tier and the submittal of procedures to TM&LS for approval. The procedures (and changes as defined above) used by the subcontractor shall be provided to TM&LS prior to performing the required special process. Textron Marine & Land Systems shall have the right to audit and/or perform surveillance functions at any special processor (sub-contractor) facility used.

Special processes include, but are not limited to:

- a. Passivation
- b. Heat treating
- c. Welding
- d. Anodizing
- e. Plating
- f. Chemical films
- g. Soldering
- h. Other (specify)
- i. Prime/paint
- j. Cleaning
- k. Brazing

When special processes are required by the TM&LS drawing, specification or purchase order, regardless of Quality Clause 440 being invoked, procedures shall be submitted to TM&LS, 1010 Gause Blvd., Slidell, LA 70458, attention PA Coordinator.

442 PROCESS CERTIFICATION

For the initial material shipment against the Purchase Order a certification containing the signature and title of an authorized representative for all special processes used shall be submitted to TM&LS, 1010 Gause Blvd. Slidell, LA 70458, attention PA Coordinator. An additional copy of the certification shall accompany the shipment.

If changes as defined by clause 440 have occurred, a new process certification shall be submitted to TM&LS, 1010 Gause Blvd. Slidell, LA 70458, attention PA Coordinator for the initial shipment after procedures are approved by TM&LS.

All special processes which are called out on the drawing or on the purchase order will be covered by the provisions of this section.

TM&LS may call for certifications to be submitted for shipments other than the initial shipment to assure compliance to requirements.

Special processes include, but are not limited to:

- a. Passivation
- b. Heat treating
- c. Welding
- d. Anodizing
- e. Plating
- f. Chemical films
- g. Soldering
- h. Other (specify)
- i. Prime/paint
- j. Cleaning
- k. Brazing

This certificate shall include the process used, reference to procedures used to satisfy clause 440 (including a revision letter, number or date), the specifications to which they conform (name, specification number and revision, type, class, purchase order, or drawing), and the name of the sub-tier supplier that performed the process if other than the supplier. The supplier must review and accept all reports of sub-tier suppliers.

450 CHEMICAL/PHYSICAL TEST REPORTS

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED.

451 CHEMICAL/PHYSICAL TEST REPORTS

Two legible copies of actual test reports shall be provided with each shipment of material. Reports must contain the purchase order number, part number, the specification and revision, heat and/or lot number it represents, and include the following:

- a. Actual chemical analysis data
- b. Actual physical analysis data.

Test reports must contain the signature of a responsible representative of the organization performing the test.

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460 FASTENERS

The supplier shall perform a chemical and physical analysis of a sample of fasteners supplied with this order. Chemical and physical analysis is required for each lot of fasteners used. A report of this analysis shall be provided with the shipment with actual analysis data included in the report along with the specification requirements. This report shall reference the subcontract number, specification number(s), and part number(s) and shall certify that the fasteners meet the subcontract requirements. The report shall be signed by a responsible quality representative.

461 FASTENERS - SPECIFIED GRADE - GRADE 5 AND HIGHER – DELIVERABLE CERTIFICATIONS

- a. One legible copies of a certification for the grade of fastener being supplied must accompany each shipment. The certification shall contain the following:
 - (1) Complete actual chemical composition as well as the specification number that the material complies with.
 - (2) Actual hardness measurement readings.
 - (3) Actual tensile strength values.
 - (4) Identity of manufacturer's logos being supplied (logo must be registered with the Defense Industrial Supply Center).
 - (5) Country of manufacture.

Any fasteners received without this certification will be rejected.

- b. One legible copies of a certification for the grade of fasteners installed in an assembly supplied by your company must accompany each shipment. The certification shall contain the data required by part a. of this Quality Clause. Any assembly received without this certification will be rejected.

462 FASTENERS - SPECIFIED GRADE - GRADE 5 AND HIGHER – NON-DELIVERABLE CERTIFICATIONS

- a. A certification for the grade of fastener being supplied must be retained on file at the Suppliers facility. The certification shall contain the following:
 - 1. Complete actual chemical composition.
 - 2. Actual hardness measurement readings.
 - 3. Actual tensile strength values.
 - 4. Identity of manufacturer's logos being supplied (logo must be registered with the Defense Industrial Supply Center).
 - 5. Country of manufacture.

All fasteners provided must be supported by this documentation.

- b. A certification for the grade of fasteners installed in an assembly supplied by your company must be retained on file at the Suppliers facility. The certification shall contain the data required by part (a) of this Quality Clause. All assemblies provided must be supported by this documentation.

Records and other objective evidence of inspection testing, processing, and fabrication shall be retained by the supplier for a minimum of 7 years after the completion of the contract unless otherwise specified. These records shall be identified and stored to enable the records to be readily located and made available as requested by TM&LS and/or the Government.

470 CERTIFICATION OF COMPLIANCE

Quality Clause 470 is satisfied without seller submittal of a certification, and if Quality Clause 475 is not invoked on the TM&LS purchase order, if the TM&LS Purchase Order invoking Quality Clause 470 includes as a general note of the TMLS purchase order the following verbiage:

“By acceptance of this purchase order and performance hereunder, the Seller hereby certifies that the articles furnished in the quantities indicated and against referenced purchase order were produced in accordance with this purchase order and all drawings/specifications referenced herein.”

- a. Two legible copies of a certificate of compliance shall be provided with each shipment. The certificate shall be signed by an authorized representative stating that the items being supplied meet applicable referenced specifications and/or drawings and that all quantities provided are in accordance with the purchase order.
- b. When items procured are off the shelf, such as standard hardware (ie, standard nuts, bolts, washers, lock wire, cotter pins, or other catalog-type material supplied by a distributor), a certificate of compliance to purchase order and applicable catalog requirements is only required.
- c. Submit with each system shipped two legible copies of a certification of compliance, attesting that the supplier has complied with the requirements of the subcontract and that material and/or equipment (as applicable) was previously tested or has now been tested. As a minimum, the certificate shall reference the subcontract number, specification, part number, drawing number, revisions, and serial numbers, as applicable. The certificate shall be signed by a responsible quality representative with his/her title listed. The certificate shall include applicable test data, refer to the witnessing inspectors, and include appropriate other verifiable

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quality data. The supplier is responsible for its vendor performance.

The certification of compliance substitute defined herein for Quality Clause 470 is only applicable to Quality Clause 470 and is not acceptable for any other Quality Clause invoked within the purchase order.

Certification provided for Quality Clause 470 shall be in compliance with the applicable alpha paragraph for the material required by the purchase order if no alpha designation is invoked with the Quality Clause on the purchase order or if not all applicable alpha paragraphs are invoked.

DROP SHIPMENT CERTIFICATION:

Drop shipped materials require that a certification of conformance be mailed to TM&LS, Attn: PA Coordinator, Product Assurance Department, indicating that a drop shipment was authorized by TM&LS/PO and completed by the Supplier.

The certification shall state the name of the TM&LS Customer/Vendor who received the drop shipped materials along with the TM&LS PO number and responsible Suppliers name.

The standard TM&LS purchase Order note verbiage, identified herein, that negates the certification submittal is not applicable to drop shipments. Quality Clause 475 need not be invoked to activate the certification/data submittal requirement by the Supplier.

The test/inspection data does not require to be provided with the drop shipped materials shipment however must be sent to TM&LS, as indicated above.

475 CERTIFICATION OF COMPLIANCE – SUPPLIER FURNISHED

When Quality Clause 475 is imposed on the Purchase Order along with Quality Clause 470, the supplier must submit the applicable certification required by Quality Clause 470 to TM&LS with the shipment of the hardware. If Quality Clause 475 is imposed on the Purchase Order, then the Terms and Conditions as noted on the Purchase Order specifying “Certificates of Compliance” will not solely suffice as compliance to the quality clause requirement.

- a. In addition to all of the requirements of Quality Clause 470 and 475 a manufacturers certification is also required which identifies each lot, heat, batch, serial number and/or unique identifying traceable number for materials provided. The certification shall, in addition, identify the applicable specifications/industry standards that the materials were manufactured to and are in compliance with such as IEEE-STD-45, for electrical cable and components, etc.

550 IDENTIFICATION OF SHELF-LIFE MATERIAL – DELIVERABLE DOCUMENTATION (20% EXPIRED)

With the shipment of each item covered by this contract, the supplier shall furnish to TM&LS written identification of any shelf-life limitations on items or components. Indicate the cure date or manufacture date, batch/lot number, the shelf-life expiration date, the storage environment, and any special consideration required to achieve the stated life. If the limited life item is individually packaged, the item package shall bear this information. The supplier shall not supply any item with more than a 20% expired shelf life at the time of delivery.

551 IDENTIFICATION OF SHELF-LIFE MATERIAL – DELIVERABLE DOCUMENTATION (40% EXPIRED)

With the shipment of each item covered by this contract, the supplier shall furnish to TM&LS written identification of any shelf-life limitations on items or components. Indicate the cure date or manufacture date, batch/lot number, the shelf-life expiration date, the storage environment, and any special consideration required to achieve the stated life. If the limited life item is individually packaged, the item package shall bear this information. The supplier shall not supply any item with more than a 40% expired shelf life at the time of delivery.

552 IDENTIFICATION OF SHELF-LIFE MATERIAL – DELIVERABLE DOCUMENTATION (50% EXPIRED)

With the shipment of each item covered by this contract, the supplier shall furnish to TM&LS written identification of any shelf-life limitations on items or components. Indicate the cure date or manufacture date, batch/lot number, the shelf-life expiration date, the storage environment, and any special consideration required to achieve the stated life. If the limited life item is individually packaged, the item package shall bear this information. The supplier shall not supply any item with more than a 50% expired shelf life at the time of delivery.

553 IDENTIFICATION OF BATTERY SHELF-LIFE MATERIAL – DELIVERABLE BLANKET DOCUMENT (20% EXPIRED)

With each initial shipment covered by this contract, the supplier shall furnish to TM&LS a document which specifies any shelf-life limitations on Batteries or components. This document shall indicate the Shelf-Life of the Battery, as well as a description of where on the Battery the Manufacture Date is located. This Blanket Shelf-Life documentation is valid for (12 months) under the existing purchase order and

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will require updated Battery Shelf-Life documentation within (12 months) from the initial shipment date and any new purchase order or changes to the existing purchase order. If the limited life item is individually packaged, the item package shall bear this information.

Shelf-life is to be determined from the date stamped on the battery starting with the first of the month.

shall be supported by a certification signed by a responsible representative of the seller stating that the materials were properly controlled prior to use on the assembly and were within their specified shelf-life period. The certification shall be traceable to the assembly produced and to this purchase order. The documentation shall be retained on file at the Supplier's facility.

Records and other objective evidence of inspection testing, processing, and fabrication shall be retained by the supplier for a minimum of 7 years after the completion of the contract unless otherwise specified. These records shall be identified and stored to enable the records to be readily located and retrieved.

555 AGE CONTROL OF RUBBER GOODS

Quality Clause 555 consists of 555 (a) and 555 (b). If no alpha character designation is specified then 555 (b) is applicable.

Rubber goods delivered under this contract shall conform to the applicable following requirements:

- a. Material shall conform to MIL-STD-1523 requirements. Non-installed items shall be packaged in a cure date marked preservative wrapping and shall be delivered within 6 months from the cure date.
- b. The materials shall conform to TM&LS Purchase Order and Drawing/Specification requirements. All materials shall be new with no signs of age or deterioration. Materials shall be commercially packaged to preserve the materials during storage.

When this Quality Clause is invoked as a Purchase Order requirement, the Supplier shall include with the shipment a Certification attesting to the compliance of the material to Purchase Order requirements and the specifics of this Quality Clause. In addition the Certification shall include the TM&LS Purchase Order Number, Part Number and be signed and dated by an authorized representative of the company.

565 TIME AND TEMPERATURE SENSITIVE MATERIAL

Time and temperature storage conditions must be attached to the packing sheet and accompany each shipment to be delivered hereunder. The outermost shipping box must be marked to indicate Time and Temperature Sensitive Material and Temperature Storage Range in degrees.

610 NONDESTRUCTIVE TESTING (NDT) REQUIREMENTS

Prior to performing any NDT under this order, the seller must obtain written approval (signed by an authorized representative of TM&LS) of seller procedures, personnel, and associated equipment as set forth in the applicable specifications and/or standards.

Seller or subcontractor laboratory personnel shall not read or interpret test results in connection with this order until evidence of their certification is approved by TM&LS.

Two legible copies of all applicable test reports signed by a responsible representative of the seller shall be provided.

The reports shall indicate the test performed, the applicable specifications or standards with revision letters or numbers, and name and address of the tester if other than the seller. It shall also indicate the part number and revision, purchase order number, and serial numbers when applicable.

If parts are not serialized, the supplier shall use temporary serial numbers and tag parts for traceability to the inspection data.

In the case of radiographic inspection, one legible copy of the X-ray report and technique sheets, signed by a responsible laboratory representative, shall accompany the material, and one legible copy of the X-ray report, technique sheets, repair sketch (repair only), and X-ray film shall be sent to:

Textron Marine & Land
 1010 Gause Blvd.
 Slidell, LA 70458
 Attention: PA Coordinator

560 SHELF-LIFE MATERIAL INSTALLED IN AN ASSEMBLY – DELIVERABLE DOCUMENTATION

Each shipment of an assembly or assemblies incorporating a shelf-life material without age control after installation (such as adhesives, resin, plastic-base paints, etc) shall be supported by two legible copies of a certification signed by a responsible representative of the seller stating that the materials were properly controlled prior to use on the assembly and were within their specified shelf-life period. The certification shall be traceable to the assembly produced and to this purchase order.

561 SHELF-LIFE MATERIAL INSTALLED IN AN ASSEMBLY – NON-DELIVERABLE DOCUMENTATION

For each shipment of an assembly or assemblies incorporating a shelf-life material without age control after installation (such as adhesives, resin, plastic-base paints, etc)

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Product Assurance Department

When testing is subcontracted, the seller is responsible for approval of the testing procedures, personnel, and associated equipment for each subcontractor as set forth in the applicable specifications and/or standards. The seller shall maintain on file certification of such approval (available to the TM&LS representative for review upon request) during the period of performance of this order or longer periods as may be specified elsewhere in this order. Textron Marine & Land Systems shall have the right to audit and/or perform surveillance functions at any subcontractor facility performing NDT functions as part of this order.

The Seller shall provide to TMLS with each shipment a Seller Certification for each subcontracted sub-tier supplier NDT performed on materials to be provided to TMLS. Each certification shall meet the requirements of Quality Clause 610 for each specific NDT method performed.

Tests/methods referred to herein include, but shall not be limited to, radiographic, ultrasonic, liquid penetrant, and magnetic-particle tests.

penetrant, ultrasonic, magnetic particle, radiographic inspections, pressure test, etc.

When testing is subcontracted, the seller is responsible for approval of the testing procedures, personnel, and associated equipment for each subcontractor as set forth in the applicable specifications and/or standards. The seller shall maintain on file certification of such approval (available to the TM&LS representative for review upon request) during the period of performance of this order or longer periods as may be specified elsewhere in this order. Textron Marine & Land Systems shall have the right to audit and/or perform surveillance functions at any subcontractor facility performing NDT functions as part of this order.

612 NONDESTRUCTIVE TESTING (NDT) RADIOGRAPHIC REQUIREMENTS

In the case of radiographic inspection, two legible copies of the X-ray report signed by a responsible laboratory representative must accompany the material, as well as the film. The X-ray technique sheet utilized shall also accompany the report. For repairs, the repair sketch and X-ray technique sheet shall accompany the X-ray report.

615 NONDESTRUCTIVE TEST CERTIFICATION

All shipments requiring nondestructive tests shall be accompanied by one legible and reproducible copy of a certified report of actual nondestructive tests (including, but not limited to, penetrant, magnetic particle, ultrasonic, radiographic, nital etch) performed identifiable with acceptance requirements and material submitted (name, specification number and revision, type, method, company procedure number, etc). These reports must contain the signature and title of the authorized supplier representative performing the inspection and must ensure conformance to specification requirements. When parts are serialized, serial number must appear on the certification. The supplier must review and accept all reports of subcontractors.

616 NONDESTRUCTIVE TEST APPROVAL

Prior to performing any nondestructive test under this order, the supplier must obtain written approval by TM&LS for supplier procedures, personnel, and associated equipment as set forth in the applicable specifications or standards. Nondestructive tests include, but are not limited to,

617 RADIOGRAPHIC TECHNIQUE SHEET

The supplier shall submit a completed radiographic technique sheet. A sample test of film processed in accordance with the technique sheet shall be submitted with the completed technique sheet for approval prior to acceptance testing and/or qualification testing.

618 VISUAL WELD INSPECTION

For any welding required by the technical data package, 100% Visual Weld Inspection (in accordance with the weld specification call out) is required.

620 QUALIFIED PRODUCTS LIST (QPL) CERTIFICATION

- a. For qualified products from a manufacturer or distributor listed on the QPL, the manufacturer or distributor shall furnish the name of the manufacturer and part number designation of the product with each shipment. This information shall be preprinted on a tag affixed to the parts, or if the size of the parts does not permit, the information shall appear on a label or on the box in which the parts are contained.
- b. For qualified products from supplier or distributors not on the QPL, the seller shall furnish with each shipment two copies of a certification signed by a responsible representative that reads as follows:

Seller certified that the product and/or supplies shipped have been qualified by (manufacturer name) under reference test number _____ and QPL (or interim approval) number _____.
- c. For a QPL item incorporated into end items, the seller shall furnish two copies of a certification signed by a responsible representative. The certification shall list the QPL items, and name and designation of the manufacturer, and the QPL reference number (which will be incorporated into an end item) and shall state that the end items meet the qualifications of the QPL.

Changes within a paragraph are noted with a bar. |

630 TESTING

Quality Clause 630 consists of 630 (a), 630 (b), 630 (c), 630 (d) and 630 (e). If no alpha character designation is specified then 630 (c) is applicable.

- a. Sixty days prior to testing, the seller shall submit test procedures to TM&LS for approval. Test procedures shall comply with the requirements of Data Item Description DI-NDTI-80603 and shall be approved by TM&LS prior to testing. Test procedures shall identify the test equipment to be used by type and model (range and accuracy shall be specified as applicable). The test procedures shall identify the methodology for performance of the test in sequential steps. The environmental conditions for testing shall also be identified.
- b. Thirty days after completion of testing, the seller shall submit a test report to TM&LS. The test report shall comply with Data Item Description DI-T-2072 and requires approval by TM&LS.
- c. Test and inspection records shall provide, as a minimum, the item description, drawing number and revision level, purchase order, contract number, test number, quantity tested/inspected, characteristics inspected with associated tolerance, actual results, disposition of test/inspection results, and identification of witnessing/performing inspector. The test data shall be furnished with the shipment.
- d. Insulation-resistance measurement tests shall be made on all motors, generators, line voltage regulators, transformers, and static power conversion equipment. Separate measurements shall be made on the armature and field windings. Insulation resistance shall be measured with an insulation-resistance indicating ohmmeter, type GC or GM, conforming to MIL-O-16485 or equivalent. The test voltage shall be applied for not less than 60 seconds. The temperature of the component shall be noted and insulation-resistance measurements shall be corrected to 25°C. Corrections shall be based on insulation-resistance doubling for each 15°C decrease in temperature.

Insulation resistances, corrected to 25°C, shall be not less than the following megohm values:

<u>AC generators</u>	
Generator stator circuit	10
Generator rotor circuit	20
Exciter armature circuit	10
Exciter field circuit	10
Starting motor	10
Governor motor	5
Starting motor	10
<u>AC motors</u>	
Squirrel-cage induction	25

(3-phase) motors	
Other AC motors	10
<u>DC motors</u>	
Armature circuit	25
Field circuit	50
<u>Components</u>	
Static power conversion equipment	10
Transformers	10
AC and DC controllers	10
Line voltage regulators (with neutral disconnected from ground)	10
Field rheostats	10
Frequency regulators	10
Variable speed controllers	10
Voltage regulators	10

NOTE

Where the drawing/specification noted on this purchase order requires an insulation resistance greater than that noted here, the drawing/specification requirement shall be complied with.

Insulation resistance test data shall be recorded and two copies shall be furnished with the shipment. The test report shall comply with the requirement of Data Item Description DI-T-2072. The test report shall include the purchase order number and serial number, part number, and nomenclature of the item tested.

- e. The supplier shall submit a test report to TM&LS with the shipment. The test report shall comply with Data Item Description UDI-T-23729, and requires approval by TM&LS. The test report shall be signed by a responsible inspection/test person.
- f. For certain suppliers approved by the Supplier Quality Manager or higher, the test records may be maintained at the supplier's facility and not required to be with the shipment. The data however must be maintained by the supplier and available within 48 hours of a request from TM&LS.

640 FUNCTIONAL TEST CERTIFICATION

The functional test records/reports for the specified testing requirements shall be maintained on file and available for examination.

650 100% LOT - OBJECTIVE INSPECTION DATA

Objective data per the drawing dimensions and associated tolerances based on the supplier's final inspection plan shall be created for each shipment and maintained by the supplier.

Changes within a paragraph are noted with a bar. |

The supplier inspection plan may include only critical dimensions as required to ensure conformance.

On a periodic basis, as deemed necessary by TM&LS Quality Engineering, data for a specific shipment and part will be requested. This clause requires that the data be created at the time of shipment therefore making the report immediately available upon request. The TM&LS review of test reports is in no way an approval of the dimensions selected and the supplier's quality planning. The supplier is responsible to deliver parts free of defects.

The data collected is for 100% of the parts provided in the shipment. The report may be the individual values for each part or portrayed as a range (min & max) of the actual inspection results. If the minimum and maximum are reported, all inspection results shall be made available at the request of TM&LS.

Inspections may be performed to a media of inspection. Data used to certify, validate and maintain the media of inspection must be available upon request.

TM&LS may, as part of corrective action for defective parts, require changes to the supplier's quality planning.

The data sheets shall contain the Purchase Order number, part number(s), quantity and the above dimensional data and be signed by a responsible representative of the seller assuring conformance to the requirements.

652 AUDITED LOT - OBJECTIVE INSPECTION DATA

Objective data per the drawing dimensions and associated tolerances based on the supplier's final inspection plan shall be created for each shipment and maintained by the supplier. The supplier inspection plan may include only critical dimensions as required to ensure conformance.

The data shall be specific to a minimum of 5 parts selected at random or 10% of the parts selected at random if the shipment is 55 parts or greater.

On a periodic basis, as deemed necessary by TM&LS Quality Engineering, data for a specific shipment and part will be requested. This clause requires that the data be created at the time of shipment therefore making the report immediately available upon request. The TM&LS review of test reports is in no way an approval of the dimensions selected and the supplier's quality planning. The supplier is responsible to deliver parts free of defects.

The report may be the individual values for each part inspected or portrayed as a range (min & max) of the actual inspection results obtained for the entire shipment provided. If the minimum and maximum are reported, all inspection results shall be made available at the request of TM&LS.

The data reports shall contain the Purchase Order number, part number(s), quantity and the above dimensional data and

be signed by a responsible representative of the seller assuring conformance to the requirements.

If a lot is produced greater than the shipment quantity, data complying with the above requirements may be created for the entire lot. This lot inspection data should be attached to a shipment specific data report as defined by this clause.

Inspections may be performed to a media of inspection. Data used to certify, validate and maintain the media of inspection must be available upon request.

TM&LS may, as part of corrective action for defective parts, require changes to the supplier's quality planning.

655 SERIALIZED - OBJECTIVE INSPECTION DATA

Objective data per the drawing dimensions and associated tolerances based on the supplier's final inspection plan shall be created for each shipment and maintained by the supplier. The supplier inspection plan may include only critical dimensions as required to ensure conformance.

The data shall be specific to all of the quantity provided in the shipment with individually listed part inspection results identified to a serial number of the actual inspection results obtained for the entire lot provided.

The data sheets shall be signed by a responsible representative of the seller assuring conformance to the requirements. If parts are not serialized, the supplier shall use temporary serial numbers and tag parts for traceability to the inspection data.

On a periodic basis as deemed necessary by TM&LS Quality Engineering, data for a specific shipment and part will be requested. This clause requires that the data be created at the time of shipment therefore making the report immediately available upon request. The TM&LS review of test reports is in no way an approval of the dimensions selected and the supplier's quality planning. The supplier is responsible to deliver parts free of defects.

TM&LS may, as part of corrective action for defective parts, require changes to the supplier's quality planning.

660 TEST BARS (CASTINGS)

The supplier shall furnish with each melt of a shipment:

- a. Two bars prepared to Federal Test Standard 151 of each heat treat and melt log of casting supplier.
- b. One spectrographic disk representing castings heat or melt supplier.
- c. Test bars and disk identified with purchase order number, alloy identification, and heat or melt they represent.

Changes within a paragraph are noted with a bar. |

662 TENSILE TEST SAMPLES

Two separately cast test bars, coupons, or appendages as defined by the applicable specification or drawing shall be submitted with each lot delivered.

664 WELD TEST SAMPLES

Supplier shall furnish with initial shipment two samples of the same type material of comparable thickness at least 6 inches in length, which bear the same type weld used on the production item.

666 PLATING TEST SAMPLE

The supplier shall submit a separate plating specimen for each lot of plated parts, in accordance with the plating specification(s) referenced on the drawing. The specimen shall be partially masked to expose a portion of the base material and any under-plating. The specimen shall be retained by the contractor.

667 TEST SAMPLES

Concurrent with the shipment of production articles, the supplier shall furnish a minimum of two test samples of each batch sufficient to conduct tests in accordance with specification or contract requirements. Each test sample must be clearly and permanently marked with (1) batch or lot number; (2) date manufactured; (3) specification or material control information number; (4) contractor's designation; (5) purchase order number.

668 HEAT TREAT SAMPLES

Two test bars or samples shall be heat treated with parts and submitted with shipment (for each heat treat lot).

670 TEST BARS (FORGINGS)

The supplier shall furnish with each shipment:

- a. Two test bars prepared to Federal Test Standard 151 of each heat of the forgings supplied.
- b. Test bars identified with the applicable purchase order number, alloy identification, and heat number it represents.

672 RAW CASTINGS AND FORGINGS

A minimum of two samples of all raw castings and forgings are required from new or reworked dies or molds and must be approved by the contractor run prior to the run of production parts. Unless source inspection is a requirement of the contract, the samples shall be forwarded to Receiving Inspection with the actual results of layout inspection, radiographs, and actual chemical and physical test results.

When source inspection is a requirement of the contract, the layout and test data shall be evaluated at the supplier's facility. In either case, first article approval is required prior to the start of production. The supplier is responsible for obtaining approval of any change in processes or tooling using the same approval instructions stated above.

674 SUPPLEMENTAL DATA REQUIREMENTS (CASTINGS/FORGINGS)

In addition to chemical/physical test reports stating the actual chemical and mechanical properties for each lot submitted, the inspection test data listed below shall be submitted for each lot of castings or forgings as required by specification or contract.

Certification for radiographic, magnetic particle, fluorescent penetrant and/or ultrasonic inspection, pressure test, and/or grain flow shall be submitted as required with the order. Radiographic inspection film for each casting radiographed shall be supplied upon request.

These reports shall be validated by an authorized representative of the supplier's quality department, by either an inspection stamp or signature.

680 REDLINE CHARTS (GEARS)

The supplier shall furnish with each shipment a continuous redline gear chart for each article in this shipment. Redline charts shall be for one complete revolution with an indication of START and STOP. The chart shall be accompanied by a certification of material and process compliance to purchase order, blueprint, and specification. The certification shall be signed by a responsible representative and shall spell out the applicable document and revision letter or date. A legend shall also be provided for strip-chart interpretation.

685 ELECTRICAL CABLE

The purchase order specification requirements are required to be met. In addition, the following requirements shall be met. Where there is a conflict in these requirements, the purchase order specification shall apply.

The supplier shall submit with the shipment a test and inspection report that provides inspection and test data (quantitative results of all quality conformance inspections and tests performed in accordance with applicable specification) showing that the cable meets specification requirements. This test report shall comply with Data Item Description UDI-T-23729. The test report shall be traceable to the cable shipped and is subject to approval by TM&LS.

Both ends of the cable shall be exposed and readily accessible. Both ends of the cable shall be sealed with a strippable plastic coating per MIL-P-149D, a minimum of 2 inches on each end. Only one cable shall be on each reel.

Changes within a paragraph are noted with a bar. |

686 ELECTRICAL CABLE INSPECTION SAMPLE

Prior to shipment, the supplier is to submit a 4-foot sample and associated test report for each lot of cable to be inspected by Textron Marine & Land Systems' Quality Engineering. Acceptance and authority to ship will be granted subsequent to inspection. Samples are to be addressed to:

Manager, Quality Services
Textron Marine & Land Systems
1010 Gause Blvd.
Slidell, LA 70458

690 ELECTRONIC COMPONENT SCREENINGS

The seller is responsible for all electronic components purchased or manufactured, and shall screen for proper material, workmanship, and performance to ensure compliance to all drawings and the specification for that component. The seller shall maintain objective evidence of compliance on file, subject to TM&LS review upon request.

691 MANUFACTURING SCREENING TEST (ESS)

The seller shall conduct temperature cycling and random vibration in accordance with NAVMAT P-9492, May 1979, section 4.0, for contract end items consisting largely of electronic components. The seller shall maintain objective evidence of compliance on file, subject to TM&LS review upon request.

693 MANUFACTURING SCREENING TEST (ESS)

The seller shall conduct temperature cycling and random vibration testing in accordance with NAVMAT P-9492, May 1979, section 4.0, for contract end items consisting largely of electronic components. The seller shall record the test results and submit a test report with each item shipped.

695 ELECTROSTATIC DISCHARGE

An electrostatic discharge control program for class 1, 2, and 3 items of DOD-HDBK-263 and class 1 and 2 items of DOD-STD-1686 shall be implemented and documented.

This order includes items sensitive to electrostatic discharge (ESD). These parts must be packaged in conductive ESD protective packaging in accordance with DOD-STD-1686. Labels indicating ESD sensitivity must be affixed to both the inner and outer packaging. Additionally, a caution label conforming to MIL-STD-129 must be affixed to the outer package.

Receiving report, packing slip, etc, must be attached to the outside of the package and be easily removable without causing harm to contents.

Parts must be handled in accordance with paragraph 5.4 of DOD-STD-1686.

710 HEAT OR MELT IDENTIFICATION

All parts and/or material shall be identified with the heat, melt or heat code, or lot number. When stamping parts is not practical, they shall be tagged.

720 IDENTIFICATION MARKING OF PARTS

Quality Clause 720 consists of 720 (a), 720 (b) and 720 (c). If the parts are Commercial (off-the-shelf) items and no alpha character designation is specified then 720 (a) is applicable to parts purchased under vendor's part numbers. If the parts are fabricated parts and/or assemblies manufactured to Government and/or TM&LS specifications and no alpha character designation is specified then 720 (c) is applicable to parts purchased under vendor's part numbers. Clause 720 (b) is applicable to parts purchased under Government, MS, NSN or TM&LS part number.

Parts within the systems, equipments, assemblies, subassemblies, components, groups, sets or kits, and of spare and repair parts shall be identified and marked in accordance with applicable specifications and drawings.

Fabrications / weldments shall be marked with the part number as identified on the purchase order. Parts making up the fabrication / weldment are not required to be marked.

To the extent identification marking of such parts is not specified in applicable specifications or drawings, the items shall be marked in accordance with the following:

- a. **Parts manufactured to Commercial (off-the-shelf) specifications** shall be marked by the supplier/distributor with the part number identified on the TM&LS Purchase Order. The part number shall either be marked directly on the part or on the part's package, carton, or container. In all cases, marking the TM&LS Purchase Order and part number on the part's package, carton, or container is required. The marking shall be in accordance with generally accepted commercial practice.

In addition to the above applicable requirements, all parts must be stamped, tagged or bagged with the TM&LS Control Number/Part Number as specified on the Purchase Order. In addition, the part, tag or bag shall have a marking to identify the Supplier/Manufacturer so that materials can be readily identifiable to the material source/point of origin.

- b. **Parts manufactured to Government and /or TM&LS specifications** shall be marked as follows:

- (1) Electrical parts, ie, all parts in electrical equipment and electrical parts used in equipment not electrical in nature (eg, electric controls and motors in a

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hydraulic system) shall be identified and marked in accordance with MIL-STD-1285. Where MIL-STD-1285 does not apply, the part shall be identified and marked in accordance with MIL-STD-130.

- (2) Electronic parts, ie, all parts in electronic equipment and electronic parts used in equipment not electronic in nature (eg, electronic fuel controls in some engines) shall be identified and marked in accordance with requirement 67 of MIL-HDBK-454.
- (3) Parts other than electrical or electronic parts (as described above) shall be identified and marked in accordance with MIL-STD-130.
- (4) In cases where parts are so small they cannot be identified and marked as provided above, those parts shall be appropriately coded to permit ready identification.

In addition to the above applicable requirements, all parts must be stamped, tagged or bagged with the TM&LS Control Number/Part Number as specified on the Purchase Order. In addition, the part, tag or bag shall have a marking to identify the Supplier/Manufacturer so that materials can be readily identifiable to the material source/point of origin.

- c. **Fabricated Parts and / or Assemblies manufactured to Government and /or TM&LS specifications** shall be marked in accordance with MIL-STD-130. In addition the individual part must be marked with the part number and TM&LS purchase order number.

730 DATE OF MANUFACTURE, FABRICATION OR FINAL ASSEMBLY

Materials, parts or assemblies shall have the date of manufacture, fabrication or final assembly applied under or near the part number and by the same method used to apply the part number. The format shall be year – four digits, month – 2 digits and day – 2 digits. An example of the correct date format is as follows: 20070601 for June 1st, 2007.

800 REPORT OF DISCREPANCY

Quality Clause 800 consists of 800 (a) and 800 (b). If no alpha character designation is specified then 800 (b) is applicable.

Unless otherwise approved by TM&LS Product Assurance on a SMRR provided by the customer, all materials supplied shall be in accordance with the configuration of the part number specified, to include revision level if stated or implied by the part number, and to be identical to all previously supplied materials. All materials shall meet the

configuration as designed and ordered, without substitution, without repairs, be new/unused status and without a deviated condition of “use as is” from the original design. All materials shall be shipped complete to the designed and required configuration, with no shortages. Any/All deviation requests shall be documented on a SMRR by the Supplier and dispositioned by TM&LS MRB prior to the shipment. Additional deliveries of parts with a deviation to requirements, even when previously accepted, must have a new SMRR submitted and approved prior to the shipment.

- a. If approved by TM&LS, the supplier shall create a Material Review Board (MRB) to review and determine action to be taken for type II nonconformance material. As a minimum, the MRB members shall consist of a supplier representative whose primary responsibility is design or engineering, a supplier representative whose responsibility is product assurance, and a Government representative. The supplier representative appointed to the MRB shall be subject to TM&LS approval. A resume of each proposed appointee will be submitted to TM&LS. Type I nonconformances shall be documented on a Supplier Material Review Request (SMRR) and submitted to TM&LS for disposition. The SMRR must receive disposition by the TM&LS Material Review Board prior to shipment of the applicable material. The SMRR forms can be obtained from TM&LS.

Nonconformances are defined as follows:

- Type I - Supplies that depart from contract requirements and affect any of the following areas: performance, durability, interchangeability, effective use or operation, weight, appearance, health, or safety.
- Type II - Supplies or services that depart from contract requirements and are minor in that they do not affect any of the criteria specified in type I above. Departures are considered minor when they deviate insignificantly from established standards with no consequences bearing on the effective use, operation of the item, related components, or application.
- b. Departures from drawings, specifications, standards, or purchase orders considered salvageable, which cannot be brought into compliance through completion of standard operations or rework to drawing requirements, will be recorded and reported on TM&LS Form 0091, Supplier Material Review Request (SMRR). Submit all completed SMRR documents to the TM&LS Buyer or directly to TM&LS Product Assurance Attn: PA Coordinator, 1010 Gause Blvd., Slidell, LA 70458. The departure must be dispositioned and approved by TM&LS prior to shipment. The conditions and instructions for the use and completion of the SMRR form are as defined on the reverse side of the form.

Changes within a paragraph are noted with a bar. |

900 PACKAGING, PRESERVATION, AND PACKING

- a. The items shall be preserved, packed, and packaged, as a minimum, in accordance with the requirements of MIL-P-116G (method 1C-3). The shelf life for delivery preparation shall be a minimum of 2 years.
- b. The item shall be preserved, packed, and packaged in accordance with good commercial practice. The shelf life for delivery preparation shall be assumed to be 2 years.

905 PACKAGING APPROVAL

The supplier shall submit its proposed packaging design criteria to the contractor for review/approval prior to the first shipment on this procurement.

906 PACKAGING, PRESERVATION, AND PACKING

Unit pack one per package within a preservation wrap per method 1C-1 of MIL-P-116, unless otherwise specified by blueprint or specification. The supplier shall provide a certification with each shipment signed by a responsible representative containing the following information: purchase order number, cure date, manufacture date, batch/lot number, material specification, compound number, revision, and the part number.

910 SELLER-CONTROLLED PRODUCTS

A copy of applicable specifications, drawings, and/or catalog fly sheets must accompany only the initial shipment of parts on this purchase order. No changes shall be made on subsequent shipments against this purchase order unless authorized by TM&LS.

915 HEAT-TREATED STEEL NUTS

Heat-treated steel nuts shall be examined for defects. Each nut shall be subjected to wet fluorescent magnetic particle inspection in accordance with MIL-STD-271. Cracks and forging laps are not acceptable. Questionable defects shall be viewed under 5X minimum magnification with the particles removed. Seams on the flats, as evidenced by the straight, longitudinal, light particle buildup appearance, are acceptable if they do not extend into the crown or the washer face by more than 1/64 inch. Indications across the threads are acceptable if they do not extend to the root. Nuts showing four or more indications exceeding 1/8 inch in length shall be rejected. This examination shall be performed on all nuts defined above, except those nuts machined from steel bars inspected by electromagnetic analysis (eddy current) and found acceptable need not be re-inspected. For the electromagnetic analysis inspection, seams and other discontinuities in bar stock shall not exceed the indication obtained from an artificial defect of 0.01 inch

in depth on a calibrated bar, or the radial thickness of material which will subsequently be removed during nut fabrication, whichever is less. Bars containing cracks, seams, or discontinuities, which exceed the above limits, shall be rejected. Wet magnetic particle inspection in accordance with MIL-STD-271 may be used in lieu of electromagnetic analysis, provided the depth of discontinuities is confirmed by filing or grinding across the area containing magnetic particle indication.

The supplier shall submit an inspection report with each lot of nuts shipped indicating actual inspection results that provide objective evidence the lot of nuts meets the above requirements.

920 OPERATING TIME/CYCLE DATA

The seller shall initiate and maintain a record of operating time and cycle record of acceptance testing in the performance of this purchase order. Operating time/cycle is a requirement of this purchase order and must be submitted with each shipment, traceable to the part it represents by serial number.

921 MATERIAL HISTORY

The supplier shall prepare and maintain a material history for supplier-furnished equipment noted below. Entries shall be made describing repairs made, maintenance performed, derangements occurring, alterations made, tests conducted, and other information considered necessary to provide a comprehensive material history of the item concerned. Routine cleaning and inspection shall not be recorded. The supplier shall operate machinery and equipment only for testing or as required to support the testing of other machinery and equipment. The supplier shall establish a system for recording the number of hours each of the following types of machinery and equipment was operated by the supplier during manufacturing, inspection, and test (prior to delivery): fuel pumps, cargo handling equipment, generator sets, water pumps, stripping pumps, hydraulic pumps, mooring and anchoring gear, lube oil pumps, and steering equipment. The supplier shall provide with each item shipped (with the shipment) the material history containing, as a minimum, part number, serial number, modifications incorporated, maintenance performed, tests conducted, number of hours the equipment was operated, and failures that occurred during test.

930 CALIBRATION REPORT

Quality Clause 930 consists of 930 (a) and 930 (b). If no alpha character designation is specified then 930 (a) is applicable.

- a. Upon completing calibration of deliverable test and measuring equipment, a signed calibration report attesting to the satisfactory calibration of the equipment shall be shipped with the equipment. The report shall

Changes within a paragraph are noted with a bar. |

provide an estimate of the uncertainty (limit of error), the calibration results, and statement that the equipment was calibrated to meet or exceed the original manufacturer specifications. The report shall identify the date of the equipment calibration and shall also attest that the standards used in obtaining the results have been compared at planned intervals with the National Institute of Standards and Technology, either directly or through a controlled system using the methods outlined in MIL-STD-45662, ISO 10012-1, ANSI/NCSL Z540-1-1994, as applicable. The report shall also specify the name of the person performing the calibration and shall be signed by a responsible representative.

- b. A signed calibration data sheet, identified to its related unit and attesting to the satisfactory calibration to MIL-STD-45662, ISO 10012-1, ANSI/NCSL Z540-1-1994 requirements, as applicable, shall accompany each shipment. The calibration data sheets shall reflect the actual calibration results.

935 LIFEBOATS

Lifeboats shall be banded / lashed to an individual pallet for handling and shipment. Warning markings (1/2-inch red letters) shall be added to the exterior of each boat and shall read as follows:

DO NOT ROLL THIS CONTAINER.

DO NOT STAND ON END.

If the lifeboat and pallet are placed in a shipping container, the above warning marking shall be placed on the sides and top of the shipping container.

The lifeboat first aid kits shall be packed with the freshest items available. However, under no condition shall those items packed have less than 24 months remaining until their shelf life expires.

The lifeboats shall have monel disks for the inflation valves. All lifeboats shall have the lifeboat serial number stenciled in 1/2-inch letters on the upper half of the lifeboat container (to indicate that the inflation valves have monel disks). This marking is to be done in accordance with MIL-C-24491B(SH), paragraph 3.5.1.1 immediately after the NSN number. The marking shall read:

NSN No.: _____

Serial No.: _____

940 DATA ITEMS

When two copies of data are requested by a quality clause(s) or any other contract document, one copy shall accompany the shipment of hardware and the second copy shall be sent to:

Textron Marine & Land
 1010 Gause Blvd.
 Slidell, LA 70458
 Attention: PA Coordinator
 Product Assurance Department

If no hardware is being submitted, submit all required copies of data to:

Textron Marine & Land
 1010 Gause Blvd.
 Slidell, LA 70458
 Attention: PA Coordinator
 Product Assurance Department

942 QUALITY AND WORKMANSHIP REQUIREMENTS, MIL-HDBK-454

Requirement 5 - Soldering; Requirement 9 - Workmanship; and Requirement 12 - Fasteners, are invoked on this order. When applicable, Requirement 10 - Electrical Connectors; Requirement 13 - Structural Welding; Requirement 17 - Printed Wiring; Requirement 67 - Marking; and Requirement 69 - Internal Wiring Practices, are also invoked on this purchase order.

950 SPECIAL CERTIFICATION REQUIREMENTS, ASV MATERIALS

The following materials require special supplier certification. The certifications shall be provided in duplicate to TM&LS with the hardware shipment. All certifications must be signed by an authorized representative stating that the item(s) meet applicable specifications, catalog requirements, technical and performance criteria, etc., and are in accordance with the purchase order. The certification must also include the item(s) Serial Number (s/n) or Model Number, as applicable, as well as the following specific verbiage. Any certifications that do not include these specifics will result in the hardware being rejected and held for supplier correction.

*** - Engine (Alternative Fuel)**

The certification must state that the engine is capable of continuous operation on fuel JP5 in all ambient temperatures without adverse impact on reliability, durability or warranty. The certification must also be supported by and accompanied by the actual test results/performance data or analytical data in addition to the above.

*** - Towing Pintle – Standard Army Type**

The certification must state that the standard Army towing swivel pintle is rated for 500 pounds tongue weight. The certification must also be supported by and accompanied by the actual test results/performance data or analytical data in addition to the above.

Changes within a paragraph are noted with a bar. |

*** - Exhaust System and Components**

The certification must state that the exhaust system muffler and tailpipe are made of corrosion resistant material. The certification must also be supported by and accompanied by actual test results/performance data or analytical data in addition to the above.

*** - Fire Extinguisher System and Components**

The certification must state that the fire extinguisher system and its components use an Army Surgeon General - approved agent and are capable of being recharged using DoD-type classified systems that use environmentally safe agents. The certification must also be supported by and accompanied by actual test results/performance data or analytical data in addition to the above.

*** - CARC Paint and Primer** The certification must state that the paint supplied is CARC paint and/or that the primer supplied is compatible with CARC paint. The certifications must also be supported by and accompanied by actual test results/performance data or analytical data in addition to the above.

*** - JP8 Fuel**

The certification must state that the fuel is JP8. The certification must also be supported by and accompanied by actual test results/performance data or analytical data in addition to the above.