

GDLS QUALITY CLAUSES

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REVISION HISTORY			
Revision	Description of Change	Author	Effective Date
5/13/10	Initial Release – conversion from web to PDF format	Shellnut	05/13/2010
5/17/10	Added QL86.0 clause and table of contents	Caullay	05/17/2010
5/27/10	Revised QL 86, re-instate QY-10	Caullay	5/27/2010
7/19/10	Various changes in red. Deleted old revisions: QJ7.1, QL22.4, QL512.1, QP2.0, QP2.1, QP41.5, QP43.0, QP5.0, QY2.7, QY2.8, QY2H.IR. Deleted Muskegon clauses: QG5.1, QW7.0 and QW6.0. Added London clauses. Added appendix and removed links in body of document and put in appendix, removed engineering revision date. Change weld submission from 10/6 or 4 weeks to 2 weeks	Gramlich/ Shellnut	07/19/2010

QUALITY CLAUSES

Production Quality Requirements

EFV 1.0 (7/11/01) Inspection System

The contracted supplier must provide and maintain an inspection system that is acceptable to General Dynamics Amphibious Systems and to the Government. All measuring and test equipment used by the contracted supplier, to inspect the items to be delivered against the contract, shall be calibrated utilizing standards whose calibration is certified as being traceable to the National Institute of Standards and Technology (NIST). ANSI/NCSL Z540.1 or ISO 10012-1, or equivalent is acceptable. The inspection system will be subject to the approval and periodic audits by GDAMS / GDLS to determine continued acceptability. The GDAMS contracted supplier is responsible for documenting and controlling any portion of this contract that is performed by the supplier or any other supplier performing work for the contracted supplier. GDAMS contract requirements would extend to the other suppliers when used.

EFV 2.0 (7/11/01) Material Review Board

Limited material review board (MRB) approval is granted on this purchase order. This authority is limited to minor non-conformances that only impact internal supplier drawings. MRB is not allowed for any nonconformance which impacts/violates the GDAMS drawing Key Characteristics or material requirements. Government participation is not required for MRB.

EFV 3.0 (7/11/01) Inspection / Test Data Retention

Supplier shall have on file for each item delivered a copy of the actual inspection data, test data and chemical test results (if required). This data shall be made available to GDAMS Quality Assurance or its representatives upon request.

EFV 4.0 (7/11/01) Inspection / Test Data Submission

Supplier shall submit to GDAMS Quality Assurance a copy of the actual inspection data, test data and chemical test results (if required) for each item delivered. Data submittal may be included with item packaging.

EFV 5.0 (7/11/01) Screws / Fasteners Documentation

Supplier shall furnish a Material Test Report for each lot of material where a lot is defined as one heat of material heat treated in one charge or as one continuous operation. The Material Test Report shall be traceable to supplied screws/fasteners and must include chemical and physical properties. Chemical and Physical properties shall meet applicable ASTM/military standards requirements.

EFV 6.0 (7/11/01) Shelf Life Requirements

The Date of Manufacture and Shelf Life Expiration Date shall be clearly marked on the item and / or packaging adjacent to batch / lot number identification. Eighty percent of the Shelf Life is required upon receipt.

EFV 7.0 (10/11/01) Key Characteristics

Supplier shall submit to GDAMS Quality Assurance a copy of the actual inspection data or test data as verification of conformance to the drawing key characteristics. Data submittal may be included with the item packaging.

EFV8.0 (11/27/01) Certificate of Conformance

The supplier shall furnish a Certificate of Conformance (COC) with each shipment attesting that the services / goods meet all of the Technical Data Package requirements. Exceptions to conformance shall be delineated and approved by GDAMS Supplier Quality Assurance prior to shipment. Unless otherwise directed, data supporting this COC shall be kept on file and made available to GDAMS upon request. The COC must include signature, date and title of the responsible Quality Representative. Approved GDLS / GDAMS Inspection Delegation suppliers may elect to ID stamp the appropriate shipping documentation in lieu of the COC.

EFV9.0 (14Jun2006) First Article Test

The supplier shall obtain First Article Approval (FAA) for this assembly or its subcomponents when a line item is included on this purchase order that requires the delivery of the final test report. The absence of this line item indicates that no FAA has been contracted or is required for this purchase order and a previous approval satisfies the Technical Data Package (TDP) requirements for FAA. First Article Approval will be granted upon successful completion of a First Article Inspection (FAI) and a First Article Test (FAT). Shipments under this purchase order prior to FAA are not allowed. FAI and FAT shall be conducted in accordance with the requirements of the TDP drawing, Critical Item Specification (CIS), and this purchase order. Additional supplier instructions for FAI are contained within GDLS Supplier Instruction QCS 83-4. A test plan and test schedule shall be submitted to GDLS prior to the start of test. Test failures are to be reported to GDLS within 48 hours (2 working days) of the incident. The supplier will provide GDLS with written failure analysis for approval and test program disposition (stop/continue test, retest). Test reports shall be prepared per MIL-HDBK-831 and be submitted to GDLS as scheduled. Any supplier-initiated changes to component design, materials, manufacturing process or manufacturing location after FAT approval are subject to another FAT at the supplier's expense. Such changes will be submitted to GDLS for review and FAT impact.

EFV10.0 (14Jun2006) Control Test

When included as a line item, the supplier shall conduct control test examinations on this item or its sub-components in accordance with the requirements of the Technical Data Package (TDP) drawing, Critical Item Specification (CIS) and this purchase order. A test plan and test schedule shall be submitted to GDLS prior to the start of test. Test failures are to be reported to GDLS within 48 hours (2 working days) of the incident. The supplier will provide GDLS with written failure analysis for approval and test program disposition (stop/continue test, retest). Test reports shall be prepared per MIL-HDBK-831 and be submitted to GDLS as scheduled. Hardware shipment of the production lot represented by the control test is not allowed prior to GDLS control test approval.

EQD2A.0 (01/01/99) GD Source Inspection

General Dynamics Land Systems source inspection/acceptance is required on this order. Supplier shall notify the buyer five (5) working days prior to start of acceptance test or inspection to allow for scheduling of a GDLS quality representative to be in attendance. The supplier shall have technical data (e.g. drawing, QAR, specification, certification, etc.) available for use in support of source inspection.

QG1A.4 (11/21/96) MIL-Q-9858 and ANSI/ISO 9000

Supplier must maintain a quality program that meets the requirements of Mil-Q-9858 dated 16 December 1963 with amendment 1, dated 7 August 1981 and Milstd-45662A dated 1 August 1988. Supplier, at their option, may implement the equivalent or better ANSI/ISO series standards (9001, etc) in lieu of the above listed mil spec/std if such implementation is at no additional charge. These programs are subject to approval and/or periodic review by GDLS/government. GDLS contracted suppliers are responsible to document and control any portion of this contract that is performed by them and extend applicable portions of this contract to any tertiary suppliers.

QG2A.4 (11/21/96) MIL-I-45208 and ANSI/ISO 9000

Supplier must maintain a quality control system that meets the requirements of Mil-I-45208, dated 16 December 1963 with amendment 1, dated 24 July 1981 and Mil-STD-45662A dated 1 August 1988. Supplier, at their option, may implement the equivalent or better ANSI/ISO series standard (9001, 9002, etc) in lieu of the above listed Mil Spec/Std if such implementation is at no additional charge. These systems are subject to approval and/or periodical review by GDLS/government. GDLS contracted suppliers are responsible to document and control any portion of this contract that is to be performed by them and extend applicable portions of this contract to any tertiary suppliers.

QG3.3 (7/20/09) GDLS MINIMUM SYSTEM REQUIREMENTS

Supplier must provide and maintain a Quality System that is acceptable to General Dynamics Land Systems and government. In addition, all measuring and test equipment used to inspect the items delivered against this contract shall be calibrated by the supplier utilizing standards whose calibration is certified as being traceable to the National Institute of Standards and Technology. These systems are subject to approval and periodic reviews by GDLS to determine acceptability. GDLS contracted suppliers are responsible to document and control any portion of this contract that is performed by either the contracted supplier or any tertiary supplier. In view of the above contracted suppliers are responsible for extending GDLS contract requirements to any tertiary supplier.

QG4.3 (12/21/98) Commercial Requirements

The products provided shall meet the characteristics of this commercial catalog item, conform to the producer's own drawings, specifications, standards and quality assurance practices and be the same as offered for sale in the commercial market. General Dynamics reserves the right to require proof of such conformance.

QG5.2 (04/18/00) C = O Sampling Plan

Product inspected by a sampling plan for delivery on this purchase order must use an acceptance number zero; i.e. accept on zero defects and reject the lot on one or more defects. AQL's may be used to establish the proper sample size, however, the acceptance number is zero.

QG6.0 (12/21/98) Material Review Board

Limited material review board (MRB) approval is granted on this purchase order. This authority is limited to minor non-conformances that only impact internal supplier drawings. MRB is not allowed for any characteristic or performance requirement which impacts/violates the GDLS drawing package. A quarterly report will be provided to GDLS-SQA summarizing MRB activities and the associated corrective action. Government participation is not required for MRB.

QG7.0 (9/26/01) ISO 9002 System Requirement

The supplier must maintain a quality management system that is compliant to ISO 9002- 1994: Model for Quality Assurance in Production, Installation and Servicing. The system is subject to approval and/or periodic review by GDLS/Government. GDLS contracted suppliers are responsible to document and control any portion of this contract that is to be performed by them and extend applicable portions of this contract to any tertiary suppliers.

QG8.0 (1/4/06) Supplemented Material Review Board

Limited material review board (MRB) approval is granted on this purchase order. This authority is limited to Class II nonconformance(s) that impact both internal Supplier and GDLS drawings. MRB is only allowed for minor dimensional characteristics which do not impact/violate the fit, form or function of the next higher level assembly or create a deviation to an approved ATP. This MRB authority does not encompass any changes to electronic components or circuitry control devices. A quarterly report will be provided to GDLS-SQA summarizing Class II MRB activities and the associated corrective actions. Government participation is not required for MRB.

QJ21.1 (12/8/97) Inspection Delegation

The supplier shall conduct all required inspections as agreed upon in accordance with supplier instruction contained in PQA 3000. The above shall be accomplished through the use of the GD approved delegate only who is responsible for the adequacy and accuracy of said inspection. Failure of GD to inspect the goods shall not limit any of GD's rights as included under the terms and conditions of this contract to recover damages from seller for supply of defective goods. This program is subject to termination with minimum notice for reasons defined in PQA 3000. All specified documents referenced in the purchase order (i.e. certifications, test reports, etc.) are not to be shipped with the product. These records are to be maintained at the supplier's facility, under delegate control, and are subject to GD verification upon request. The records must be retained for five (5) years after completion of deliveries and payment thereof under this purchase order. This paragraph takes precedence over remaining quality requirement clauses for data submittals.

QJ22.0 (12/21/98) Commercial Packing List

This is a commercial item procured from a catalog source. The packing list shall state "commercially procured item" boldly in upper case characters on the face of the packing list/shipping document to preclude further inspection by the receiving facility. Failure to mark the packing list as instructed may result in the shipment being inspected and/or rejected at the supplier's expense.

QJ7H.0 (10/5/98) Government GSI

Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify the government representative who normally services your plant so that appropriate planning for government inspection can be accomplished. In the event the representative or office cannot be located, our purchasing agent should be notified immediately.

QJ8.1 (1/18/88) Government Selective Evaluation

During performance on this order, your quality control or inspection system and manufacturing processes may be subject to review, verification and analysis by authorized government representatives. Government release of product prior to shipment is not required unless you are otherwise notified by General Dynamics Land Systems purchase order supplement.

QK10.1 (5/31/10) Ballistic Steel Traceability

Items under this purchase order require steel traceability back to the mill material certifications. All parts must be uniquely identified via a traceability scheme which relates the subject part back to the source material certifications, as retained by the supplier. Parts produced from a specific plate shall be marked with that plate's unique Plate Tracking Number used to reference back to the material certifications. The supplier shall maintain a documented record of the Plate Tracking Number by part number for each assembly.

Ballistic steel furnished by GDLS will normally include the Plate Tracking Number, generated and applied by GDLS prior to steel delivery. The supplier shall ensure the Plate Tracking Number is present and accompanied by the required material certifications prior to further processing.

For supplier procured steel or steel plate furnished by GDLS without a Plate Tracking Number, the Plate Tracking Number sequence shall be developed by the supplier and submitted to the GDLS buyer for approval prior to implementation. Mill certifications shall be electronically submitted by the supplier to bsteelcerts@gdls.com

The Plate Tracking Number shall be marked on the piece parts with white oil based paint markers away from the areas to be welded. Any inspection imposed on them, shall verify the traceability data record. Records shall be retained at the supplier, subject to periodic audit.

QK11.2 (7/20/09) Test Data

Test Data Submittal Requirement

Supplier shall have on file for each shipment a copy of the actual chemical test results, physical test results and/or test data as required. These results shall be made available to GDLS on request within a reasonable amount of time.

QK9.1 (1/19/99) QAP-Cert (Fill In)

Special quality assurance requirements (QAR, QAP, SQAP, SPEC, etc) apply to the item(s) being procured under this contract. The supplier shall have documented objective evidence on file verifying conformance to specific

characteristics referenced in the requirement. The objective evidence shall be made available to GDLS on request within a reasonable amount of time.

QK12.0 (7/10/09) Engineering Prototype Sample Approval

Supplier shall confirm TDP compliance according to item specific PS-FRM-3.2.55 form provided by buyer. Supporting compliance data shall be submitted prior to material shipment, to the GDLS-C ED&D PA contact identified on the form. Any deviations to the TDP require ED&D PA approval prior to shipment.

QK14.0 (6/30/10) Engineering Prototype Commercial

Items under this Purchase Order do not require GDLS specified quality inspections or documentation submittal. Product shall meet the Technical Data Package (TDP) requirements, and shall be verified according to the supplier's standard quality system requirements. GDLS reserves the right to require proof of such conformance. Any deviations to the TDP require ED&D PA approval prior to shipment.

QK16 (11/17/04) Key Characteristics

Attributes identified as Key Characteristics shall demonstrate a process capability of 1.33 Cpk or be inspected 100%. The supplier shall have documented objective evidence on file which supports the process capability of 1.33 or greater, or the actual inspection and/or test data as verification of conformance to the drawing key characteristics. The objective evidence shall be made available to GDLS on request within a reasonable amount of time.

QL22.5 (05/09/2007) Screws / Fasteners

Use of grade 5 or 8 fasteners/hardware, within products supplied to General Dynamics, must be from a manufacturer approved by GDLS.

Socket and hex head fasteners will be plated as specified. Results of required tests shall be maintained on file and available.

Additionally, your receiving inspection criteria, on above stated list, shall include a verification of approved logo head markings to a 0.04% AQL sample as outlined in Mil-Std-105, however, acceptance is C=0. Each identifiable lot will then be subjected to laboratory testing as specified in **two (2)** succeeding paragraphs. Documented evidence shall be made available upon request.

Supplier shall furnish a certification with each shipment that indicates the grade 5, grade 8 hex and socket head fasteners with equivalent grade 5 and grade 8 material chemistry used in assembly(s) specified on this purchase order, meet applicable military standard requirements. This certification document must include actual material chemistry elements, core hardness (per table I of SAE J-429) and plating requirement as specified in purchase order. The laboratory test sampling size shall be performed in accordance with section 7.3 of SAE J-429.

When multiple usage of fastener dash numbers and/or manufacturer's head logo

markings are utilized, the certification shall reference each type. Laboratory sample testing may be waived (with GDLS prior approval) on assemblies specified on this purchase order if the fasteners used originate from an approved GDLS supplier. Cap fastener must be identified with proper grade symbol markings and shall be marked with the manufacturer's identification head logo. Subsequent lot shipments covered under this purchase order will be accepted with a copy of the original laboratory test sampling date, providing the fastener manufacturer's logo markings are traceable to the initial certification.

QL31.1(7/20/09) Functional Test

Supplier shall furnish a certification with each shipment to indicate that the test requirements have been complied with and actual tests results are on file and available upon request. Certification must include signature, date and title of responsible supplier representative and specifically identify the shipment it relates to including serial number if applicable, for instance, by reference to the shipper number.

QL41.0 (1/1/86) Inspection Cert - Jan Devices

Supplier shall comply with mil-s-19500 documentation requirements for traceability. Copy of certification of Jan Devices must be maintained on file and be available upon request.

QL42.0 (1/1/86) Inspection Cert - Nuclear Hardness

Supplier shall comply with nuclear hardness requirements specified in the technical data package. All required certification documentation must be maintained on file and be available upon request.

QL46.0 (7/10/09) CARC Paint Process Certification

The CARC process applied to this item requires certification to demonstrate compliance to the TDP requirements. Paint certification requirements as outlined in GDLS-C Form 4707, shall be submitted with FPI/PPAP for GDLS approval.

QL512.2 (7/26/00) 11655194 (or) Mil-Std 2000A

Soldering shall be in accordance with either Mil-Std-2000A, TACOM soldering process specification 11655194, ANSI/J-STD-001B or other commercial soldering standards with the contractor's approval.

QL52.0 (1/1/86) TT-C-490/MIL-P-16232

Supplier shall maintain inspection records indicating quantity accepted/rejected in accordance with MIL-P-16232, DoD-P-16232 and/or TT-C-490. These inspection records shall be traceable to each lot of material so processed and shall be available for GDLS or government review upon request. The pre-production approvals cited are not required to be submitted to GDLS, however, the procedure approval must be documented and maintained at your facility.

QL6.1 (4/24/88) Consigned Material

The supplier shall be required to furnish a certification with each shipment whenever the material furnished by the buyer has been replaced or substituted during the manufacturing operations.

The certification, when required, shall state the material and/or chemical composition of the material substituted and shall include signature, date, and title of supplier representative and specifically identify the shipment it relates to; for instance, by reference to the shipper number.

QL81.0 (1/1/86) Radiographic

Supplier shall control radiographic inspection equipment and personnel, including the certification and qualification to the specification. Records shall be maintained for all personnel certified, indicating the date of certification and objective evidence of examination. Records shall be made available upon request.

QL82.0 (1/1/86) Magnetic Particle

Supplier shall control magnetic particle inspection equipment and personnel, including the certification and qualification to the specification. Records shall be maintained for all personnel certified, indicating the date of certification and objective evidence of examination. Records shall be made available upon request.

QL83.0 (1/1/86) Eddy Current

Supplier shall control eddy-current inspection equipment and personnel, including the certification and qualification to the specification. Records shall be maintained for all personnel certified, indicating the date of certification and objective evidence of examination. Records shall be available upon request.

QL84.0 (1/1/86) Ultrasonic

Supplier shall control ultrasonic inspection equipment and personnel, including the certification and qualification to the specification. Records shall be maintained for all personnel certified, indicating the date of certification and objective evidence of examination. Records shall be made available upon request.

QL85.0 (1/1/86) Dye-Penetrant

Supplier shall control dye-penetrant inspection operations including the certification and qualification to the specification. Records shall be maintained for all personnel certified, indicating the date of certification and objective evidence of examination. Records shall be made available upon request.

QL86.0 (5/13/10) Non Destructive Testing (NDT), Double-V Hull Plates

Supplier shall conduct either dye penetrant inspection (per ASTM E165), or magnetic particle inspection (per ASTM E1444) on the tension side of all formed radii for each item produced. Any indication of a crack shall be cause for rejection. The GDLS buyer shall be notified immediately.

Supplier shall control NDT operations including certification and qualification, as required, to ASTM E165 and/or ASTM E1444. Records shall be maintained for all personnel certified, indicating the date of certification and objective evidence of examination. Records shall be made available upon request.

QL87.0 (6/2/10) CANCELLED

QP2.2 (1/29/02) Shelf Life Requirement

The seller shall identify those items and/or assemblies which have a specific shelf life requirement. At a minimal the GDLS part number, date manufactured, shelf life, and HSDS as applicable will be marked on each individual container. Seventy-five percent of the Product(s) shelf life is required upon receipt at GDLS

QP8.0 (7/10/09) Sub-contract Requirements

All Quality Requirements of the Statement of Work (SOW) apply to this purchase order.

QP9.0 (7/10/09) Re-work Requirements

Rework product to new condition and upgrade to the specified revision. Any deviations from the specified design configuration will require prior authorization.

QP41.6 (05/09/2007) Traceability - MS Fasteners (CAD)

Grade 5/Grade 8 hex head and socket head fasteners, with equivalent Grade 5 and Grade 8 chemistry, shall be purchased directly from only those manufacturers approved by GDLS. Approved manufacturers must supply fasteners of their own manufacture only and are not allowed to procure or supply fastener from any other approved North American manufacturer for subsequent sale to general dynamics.

Fastener supplier shall furnish a certification with each shipment that documents the actual material chemistry, core hardness, or tensile strength (per I or SAE J-

429 for hex head or section 3 of FF-S-86E for socket head fasteners) and plating requirements specified in Purchase Order. The laboratory test sampling size shall be performed in accordance with section 7.3 of SAE J-429.

Subsequent lot shipments covered under this purchase order will be accepted with a copy of the original laboratory results provided the fasteners originated from the initial raw material production run.

QP42.0 (12/1/89) O-Ring (Set-Test)

O-Ring Compression Set Test Results

The supplier shall maintain actual o-ring compression set test data for each purchase order shipment to General Dynamics Land Systems per the requirement of specification. In addition, the specific compression set test results shall be subject to random audits by GDLS at supplier's facility and shall be presented to GDLS representatives upon request.

QP43.1 (05/09/2007) Traceability - MS Fasteners (Zinc)

Grade 5/Grade 8 hex head and socket head fasteners with equivalent Grade 5 and Grade 8 chemistry shall be purchased directly from manufacturers approved by GDLS. Approved manufacturers must supply fasteners of their own manufacture and are not allowed to procure or supply fasteners from any other approved North American manufacturer for subsequent sale to General Dynamics.

Fastener supplier shall furnish a certification with each shipment that documents the actual material chemistry, core hardness, or tensile strength (per table I or SAE J-429 for hex head or section e of FF-S-86E for socket head fasteners) and plating requirements outlined in specified in the Purchase Order. The laboratory test sampling size shall be performed in accordance with section 7.3 of SAE J-429. Subsequent lot shipments covered under this purchase order will be accepted with a copy of the original laboratory results provided the fasteners originated from the initial raw material production run.

QP44.0 (7/10/09) North American High Strength Fasteners

All high strength fasteners offered for sale to GDLS-C shall conform to the requirements of Form 4496. Bulk fasteners shall include the Declaration (Form 4496, Appendix A) or Certification (Form 4496, Appendix B) in the FPI/PPAP submission.

Fasteners offered for sale to GDLS-C within assemblies shall conform to the following sections of Form 4496:

- A) No high strength fasteners are contained within the assembly. The FPI/PPAP submission shall include a declaration (Form 4496, Appendix A),
or

- B) High strength fasteners are contained within the commercial item assembly. The FPI/PPAP submission shall include a certification (Form 4496, Appendix C) stating that the supplier's quality control system for fasteners meets the intent of Form 4496, section 2.0, or
- C) High strength fasteners are contained within the non-commercial item assembly. The FPI/PPAP submission shall include a certification (Form 4496, Appendix D) stating that the supplier's quality control system for fasteners meets all the requirements of Form 4496, section 2.0.

QP5.1 (12/7/06) Serialization Requirements

Each unit supplied on this purchase order must be permanently marked with a unique serial number which consists of any combination of numbers and letters. Alpha and numeric letters must be clearly distinguishable (ex. 2 and Z, 1 and I, 0 and O, etc.) The supplier must insure that serial numbers are not duplicated for previous or future shipments of the same part number. The supplier must submit their planned serial numbering sequence to the buyer for approval prior to serial numbers being applied. The numbering sequence must be approved by the buyer on the initial purchase order and for any subsequent purchase order where the supplier intends to change the sequence of serial numbers.

QP6.0 (1/1/86) Ordering Data Sheets

Supplier shall comply with specific ordering data sheet requirements specified in this technical data package.

QP71.0 (1/1/86) Cleaning (SC-X14510)

1. Per paragraph 4.2.2.3 of SC-X-14510 each unit shall be cleaned for compliance to requirements of paragraph 3.2.2.3.

QP92.1 (2/24/99) Military Standard Hardware ID

Supplier shall furnish standard hardware to the drawing revision level as indicated in the purchase order and/or technical data/drawing package. If no revision level is specified for technical data/drawing package provided, parts must be supplied to the latest revision level established by design agencies as of the date of this purchase order.

QP93.0 (5/1/90) Packing Slip Requirement

Packing slips must be numbered and depict the following information: Purchase order number, line item number, quantity, part number, drawing number, revision letter and date, ECP number(s), and waiver number(s) if applicable.

QP94.0 (7/25/00) Foundry Control

Foundry control and production x-ray technique approval is required by the procuring activity in accordance with specification 12292537. Approval must be obtained prior to initial shipment of castings on this purchase order.

QP95.0 (3/3/09) Item Unique Identification (IUID) per MIL-STD-130

The supplier shall apply Machine Readable Information (MRI) marking per MILSTD-130, Unique Item Identifier (UII) Construct No. 2, to each item produced. Marking shall include, but not be limited to, manufacturer CAGE code, original part number and serial number (if serialization is required by drawing or specification). The supplier shall demonstrate 2D Data Matrix Symbol readability via a verifiable automatic identification device.

QW5.3 (7/15/92) Weld Specimens (MIL)

Weld specimens shall be furnished to the address listed below at least **two (2)** weeks in advance of production welding. The specimens are to be fabricated using the submitted welding procedure specification (WPS). Following (WPS) approval, the "weld specimen" and the "approved procedure" will be returned and is to be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes, resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

General Dynamics Land Systems Division

Lima Assembly Tank Plant

1161 Buckeye Road

Lima, OH. 45804

Attn: Material Control Laboratories

QW51.2 (7/15/92) Weld Specimens (SD-X SPECS)

Weld specimens shall be furnished for new welding procedure specifications (WPS) or when procedure parameters are outside previously approved limits. Weld specimens, as applicable, shall be furnished to the address listed below at least **two (2)** weeks in advance of production welding. Following (WPS) approval, the "weld specimens and "approved procedure" will be returned is to be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes, resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

General Dynamics Land

Systems Division

Lima Assembly Tank Plant

1161 Buckeye Road

Lima, Oh 45804

Attn: Material Control Laboratories

QW52.2 (7/15/92) MIL-STD-1261 OR SD-X12142

MIL-STD-1261:

Weld specimens shall be furnished to the address listed below at least **two (2)** weeks in advance of production welding. The specimens are to be fabricated using the submitted welding procedure specification (WPS). Following (WPS) approval, the "weld specimen" and "approved procedure" will be returned and is to be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes, resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

- or -

If SD-X12142 is used for welding:

Weld specimens shall be furnished for new welding procedure specifications (WPS) or when procedure parameters are outside previously approved limits. Weld specimens, as applicable, shall be furnished to the address listed below at least **two (2)** weeks in advance of production welding. Following (WPS) approval, the "weld specimens" and "approved procedure" will be returned and is to be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes, resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QW53.2 (7/15/92) MIL-W-45205 OR SD-X12143

MIL-W-45205:

Weld specimens,(except class b) shall be furnished to the address listed below at least **two (2)** weeks in advance of Production welding. No specimens shall be required for "class b". The specimens are to be fabricated using the submitted welding procedure specification (WPS). Following (WPS) approval, the "weld specimens" and "approved procedure" will be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes, resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

- or -

SD-X12143:

Weld specimens shall be furnished for new welding procedure specifications (WPS) or when procedure parameters are outside previously approved limits. Weld specimens, as applicable, shall be furnished to the address listed below at least **two (2)** weeks in advance of production welding. Following (WPS) approval, the "weld specimens" and "approved procedure" will be returned and is

to be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes, resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

**QW54.2 (7/15/92) MIL-STD-248 OR SD-X12142
MIL-STD-248:**

All certification tests shall be performed in accordance with Mil-Std-248 and the certified tests results shall be submitted with the applicable welding procedure specification (WPS) to the address listed below at least **two (2)** weeks in advance of production welding. Approval requirements and visual criteria shall apply to parts utilizing this specification.

- or -

SD-X12142:

Weld specimens shall be furnished for new welding procedure specifications (WPS) or when procedure parameters are outside previously approved limits. Weld specimens, as applicable, shall be furnished to the address listed below at least **two (2)** weeks in advance of production welding. Following (WPS) approval, the "weld specimens" and "approved procedure" will be returned and is to be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes, resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

**QW55.1 (7/15/92) MIL-STD-1261 OR SD-X12140
MIL-STD-1261:**

Weld specimens shall be furnished to the address listed below at least **two (2)** weeks in advance of production welding. These specimens are to be fabricated using the submitted welding procedure specification (WPS). Following (WPS) approval, the "weld specimen" and "approved procedure" will be returned and is to be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes, resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

or

SD-X12140:

Weld specimens shall be furnished for new welding procedure specifications (WPS) or when procedure parameters are outside previously approved limits. Weld specimens, as applicable, shall be furnished to the address listed below at least **two (2)** weeks in advance of production welding. Following (WPS) approval, the "weld specimens" and "approved procedure" will be returned and is to be maintained by the supplier during the terms of the contract. For all parts that have been in continuous production and have not been affected by design changes. Resubmission of weld specimens shall not be required unless the previously approved procedure is rejected.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX22.0 (7/10/09) Weldable Appurtenances

Item shall be free of mill scale, rust and oil free. The supplier shall ensure that magnetic lifting devices are not used when handling steel.

Only water-soluble coolants, tapping fluids, etc. should be used during processing. It is required that these process fluids leave a rust-inhibiting residue when the fluid dries. If hydrocarbon coolants, tapping fluids, etc. are used, they must be followed by a post-cleaning step. The post cleaning step must consist of a hot alkaline cleaner that is based on fatty acids or amines.

Packaging must be accomplished in such a way that rusting will be minimized. Examples are sealed plastic bags in boxes, or wax-lined boxes.

QX23.2 (7/1/10) Ballistic Steel Welding – GDLS-C Weld Standard

Processes related to Welding of ballistic steel components shall be validated by GDLS prior to welding production parts. Welders must have current certification records on file at GDLS and must re-qualify periodically. Welded assemblies shall be verified compliant to D-20 “Acceptance Criteria for Weld Discontinuities”, as supplied by the GDLS buyer.

Heat Affected Zone Criteria (HAZ): The rework or addition of any ballistic weld joint outside of the print specified location is not permitted; the supplier shall consult GDLS for MRB approval prior to any such rework. Rework examples include but are not limited to: mislocated / translated appurtenances or welds, stray welds, arc strikes, and additional welds not mandated by the TDP.

TACOM 12479550 “Ground Combat Vehicle Welding Code – Steel” shall be referenced in conjunction with MIL-HDBK-1941 “Metal-Arc Welding of Homogeneous Armor”, where MIL-HDBK-1941 is specified in the TDP.

Welding Procedure Specifications & Procedure Qualification Records, welder qualification records, and if requested, first off weld specimens representative of production welding, shall be submitted to:

GDLS-C Originating Contracts
General Dynamics Land Systems - Canada 1991 Oxford Street East London, Ontario, Canada N5V 2Z7 Attn: Weld Lab

QX26.0 (7/1/10) Ballistic Steel Welding – TACOM 12479550

Weld joints within this assembly are to be qualified, implemented, and inspected in accordance with TACOM 12479550 “Ground Combat Vehicle Welding Code – Steel”, in conjunction with MIL-HDBK-1941 “Metal-Arc Welding of Homogeneous Armor”. A weld qualification data package consisting of the following elements shall be maintained by the supplier. Minimum data package requirements shall be furnished to the appropriate client address listed below, at least two (2) weeks in advance of production welding.

The weld qualification data package shall contain at a minimum:

1. Weld Procedure Specification (WPS).
2. Procedure Qualification Record (PQR) with accompanying test results.
3. Welder Qualification Records.

The following elements shall be provided upon request:

4. Weld map, detailing which WPS(s) apply to which weld joints.
5. Visual inspection criteria/instructions in place.
6. Weld rework instructions in place.
7. First off weld specimens representative of production welding.

Heat Affected Zone Criteria (HAZ): The rework or addition of any ballistic weld joint outside of the print specified location is not permitted; the supplier shall consult GDLS for MRB approval prior to any such rework. Rework examples include but are not limited to: mislocated / translated appurtenances or welds, stray welds, arc strikes, and additional welds not mandated by the TDP.

GDLS-C Originating Contracts
General Dynamics Land Systems - Canada 1991 Oxford Street East London, Ontario, Canada N5V 2Z7 Attn: Weld Lab

QX24.0 (7/10/09) Weld Inspection

- 1) All welds on items in this contract shall be visually inspected by Certified AWS or CWB Welding Inspectors. Weld inspectors shall:
 - i. Hold current or previous certification as an AWS Certified Welding Inspector (CWI) in conformance with the provisions of AWS QC1 (Standard and Guide for Qualification of Welding Inspectors).
 - or
 - ii. Hold current or previous certification by the Canadian Welding Bureau (CWB) in conformance with the requirements of the Canadian Standard Association (CSA) Standard W178.2 (Certification of Welding Inspectors).

Inspection shall be conducted in accordance with the governing weld specification identified in the TDP. When no weld specification is identified the requirements shall be governed by AWS D1.1 for steel, AWS D1.2 for aluminum, or AWS D1.6 for stainless steel. Copies of inspector certifications shall be provided for FPI review; verification inspection reports shall be retained by the contractor and made available upon request.

2) Weld Inspection NDT Quality Control Plan:

Supplier shall develop an NDT Quality Control Plan to be submitted with FPI. Welds on items shall be verified by Liquid Penetrant Testing. Penetrant testing shall be conducted in accordance with ASTM E 165 (Standard Test Method for Liquid Penetrant Examination) and ASTM E 1417 (Standard Practice for Liquid Penetrant Testing). Personnel performing penetrant testing shall be qualified in conformance to SNT-TC-1A, Mil-Std-410, NAS410, or ANSI/ASNT CP-189, and be certified to NDT Level II. Personnel performing penetrant inspection need not be certified under AWS QC1 or CSA W178.2. Copies of personnel certifications shall be provided for FPI review; penetrant testing reports shall be retained by the contractor and made available upon request.

Magnetic Particle Testing may be conducted in lieu of penetrant testing, subject to GDLS approval. Magnetic particle inspection shall be conducted in accordance with ASTM E 1444 (Standard Practice for Magnetic Particle Examination).

QX25.0 (7/10/09) Repair and Overhaul

This clause applies to customer owned material for Repair Only. Upon completion of repair, the supplier shall return the item, together with:

- A) a report indicating work performed to bring material to usable condition.
- B) a Certificate Of Conformance indicating compliance to specification(s) and completion of repaired item functional testing to original test procedure(s).
- C) appropriate test results and/or measurements supporting requirement (b) above shall be submitted with the shipment, unless otherwise specified.

Shipments must include the documentation required by this clause.

QX105.0 (7/15/92) Welding - Independent Test Lab

Welding qualified at independent lab: hardware shall be welded using a welding process qualified by General Dynamics as defined in the supplier instructions QCS 83-9 and fabricated in accordance with specification _____ . Weld samples shall be submitted to an independent lab for required testing. When the blueprint allows for use of optional specification shall apply.

QX106.0 (7/15/92) Welding - JSMC Test Lab

Welding qualified at JSMC lab: hardware shall be welded using a welding process qualified by General Dynamics as defined in the supplier instructions QCS 83-9 and fabricated in accordance with specification _____ . Weld samples and procedures shall be submitted to GDLS for prior approval. When the blueprint allows for use of optional specifications only the quality clause for the selected specification shall apply.

QX107.0 (8/5/97) Fusion Weld - MIL-STD-2219

Welding procedure specifications (WPS) to be used for production parts against this contract per standard Mil-Std-2219 shall be furnished to the address below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX111.3 (7/15/92) Weld Procedure - SD-X12141

Welding procedure specification (WPS) to be used for production parts against this contract per specification SD-X12141 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land Systems
Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX112.6 (7/15/92) Weld Procedure - MIL-W-6858

Welding procedure specifications (WPS) to be used for production parts against this contract per specification mil-w-6858 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX113.4 (7/15/92) Weld Procedure - MIL-W-6873

Welding procedure specifications (WPS) to be used for production parts against this contract per specification MIL-W-6873 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX116.2 (7/15/92) Weld Procedure - MIL-B-12672

Welding procedure specifications (WPS) to be used for production parts against this contract per specification mil-b-12672 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX117.3 (7/15/92) Weld Procedure - MIL-STD-1941

Welding procedure specifications (WPS) to be used for production parts against this contract per specification mil-std-1941 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX118.2 (7/20/09) Commercial Welding - A.W.S.

Weld joints within this assembly are to be qualified, implemented, and inspected in accordance with the governing commercial weld specification (AWS D1.1, AWS D1.2, AWS D1.3, or AWS D1.6). When no weld specification is identified in the TDP the requirements shall be governed by AWS D1.1 for steel, AWS D1.2 for aluminum, or AWS D1.6 for stainless steel. A weld qualification data package consisting of the following elements shall be maintained by the supplier. Minimum data package requirement shall be furnished to the appropriate client address listed below at least **two (2)** weeks in advance of production welding.

The weld qualification data package shall contain at a minimum:

1. Weld Procedure Specification (WPS).
2. Procedure Qualification Record (PQR) including accompanying test results.
3. Welder Qualification Records.

The following elements shall be provided upon request:

1. Weld map, detailing which WPS(s) apply to which weld joints.
2. Visual inspection criteria/instructions in place.
3. Weld rework instructions in place.

The weld qualification data package shall be submitted to the appropriate client:

GDLS-SHC Originating Contracts GDLS-C Originating Contracts

General Dynamics Land

SystemsLima Assembly Tank

Plant1161 Buckeye Road Lima, Oh

45804

Attn: Material Control Laboratories

General Dynamics Land Systems -

Canada1991 Oxford Street East London,

Ontario, Canada N5V 2Z7

Attn: Weld Lab

QX119.2 (7/15/92) MIL-W-46132 Electron Beam Welding

A minimum of two (2) weld specimens for each machine using the welding procedure specifications (WPS) as established by the procuring activity per specification MIL-W-46132. The weld specimen and (WPS) shall be forwarded to the address listed below at least **two (2)** weeks in advance of production welding. A certification shall be supplied with the initial production shipment indicating compliance to specification MIL-W-46132 and that all data is on file and available upon request. The certification shall include signature, date, and the title of responsible supplier representative, and specifically identify the shipment it relates to, for instance, by reference to the shipper number.

General Dynamics Land

Systems Division

Lima Assembly Tank Plant

1161 Buckeye Road

Lima, Oh 45804

Attn: Material Control Laboratories

QX1191.0 (3/26/93) AMS 2681 Electron Beam Welding

A minimum of two (2) weld specimens for each machine using the welding procedure specifications (WPS) as established by the procuring activity per specification AMS 2681. The weld specimen and (WPS) shall be forwarded to the address listed below at least **two (2)** weeks in advance of production welding. A certification shall be supplied with the initial production shipment indicating compliance to specification AMS 2681 and that all data is on file and available upon request. The certification shall include signature, date, and the title of responsible supplier representative, and specifically identify the shipment

it relates to, for instance, by reference to the shipper number.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX12.0 (7/15/92) Weld Procedure - MIL-W-8604

Welding procedure specification (WPS) to be used for production parts against this contract per specification MIL-W-8604 shall be forwarded to the address listed below at least **two (2)** weeks in advance of production welding. The (WPS) shall include the approval signature of the authorized government representative and objective evidence that the tests specified in "section 4" of MIL-W-8604 were satisfactorily completed.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX1201.1 (7/15/92) MIL-W-8604AER Requirements

Welding procedure specification (WPS) to be used for production parts against this contract per specification MIL-W-8604AER shall be forwarded to the address listed below at least **two (2)** weeks in advance of production welding. The (WPS) shall include the approval signature of the authorized government representative and objective evidence that the tests specified in "section 4" of MIL-W-8604AER were satisfactorily completed.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX13.4 (7/15/92) Weld Procedure - MIL-W-8611

Welding procedure specifications (WPS) to be used for production parts against this contract per specification MIL-W-8611 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX14.4 (7/15/92) Weld Procedure - MIL-W-12332

Welding procedure specifications (WPS) to be used for production parts against this contract per specification MIL-W-12332 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX16.4 (7/15/92) Weld Procedure - MIL-W-45206

Welding procedure specifications (WPS) to be used for production parts against this contract per specification MIL-W-45206 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX17.4 (7/15/92) Weld Procedure - MIL-W-45210

Welding procedure specifications (WPS) to be used for production parts against this contract per specification MIL-W-45210 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QX18.4 (7/15/92) Weld Procedure - MIL-W-46086

Welding procedure specifications (WPS) to be used for production parts against this contract per specification MIL-W-46086 shall be furnished to the address listed below for approval at least **two (2)** weeks in advance of production welding.

General Dynamics Land
Systems Division
Lima Assembly Tank Plant
1161 Buckeye Road
Lima, Oh 45804
Attn: Material Control Laboratories

QY11.9 (7/8/09) First Piece Inspection

A first piece inspection (FPI) is required as part of this purchase order. It is the supplier's responsibility to conduct a FPI on one of the first five pieces delivered under this order to verify conformance of all physical, chemical, and test requirements specified as part of this order. Upon completion of the inspection, the supplier shall notify the buyer and/or cognizant GD SQA representative. Objective evidence of this requirement shall be available and verified by GD prior to commencing shipments on this order. A five (5) day notice shall be required for scheduling verification.

If supplier-developed test software is used as a means of functional product acceptance, the test software must be approved by GDLS Quality Engrg & Test. The test software shall be submitted to GDLS Quality Engrg & Test for review to facilitate software approval prior to the scheduled FPI.

In the case of distributors, the requirement can be considered satisfied by presenting the GA SQA representative with a certificate of conformation from the manufacturer as long as it states objective evidence is on file and available. Manufacturers of QPL parts are only required to produce evidence of current qualifications for QPL parts.

First piece inspection (FPI) is considered satisfied if the purchase order has an active line item for a first article inspection or it has been completed as part of the

first article test requirements.

First piece inspection approval is considered extended by GD from one purchase order to the next provided that:

1. No configuration changes have occurred.
2. The part is manufactured at the same facility.
3. The manufacturing process has remained the same.
4. There has been no more than a one (1) year break in production.
5. No formal corrective action has been required.
6. The sub-tier suppliers and special processors have not changed.

SQA must be notified if any of the above conditions cannot be met. Objective evidence must be maintained demonstrating the above.

QY2.9 (9/26/01) FAT-QCS-4

The supplier shall obtain First Article Approval (FAA) for this assembly or its subcomponents when a line item is included on this Purchase Order that requires the delivery of the final test report. The absence of this line item indicates that no FAA has been contracted or is required for this Purchase Order and a previous approval satisfies the Technical Data Package (TDP) requirements for FAA. First Article Approval will be granted upon successful completion of a First Article Inspection (FAI) and a First Article Test (FAT). Shipments under this Purchase Order prior to FAA are not allowed. FAI and FAT shall be conducted in accordance with the requirements of the TDP drawing, QAR/QAP, production function/fabrication specification and/or military specification and this Purchase Order. Additional supplier instructions for FAI are contained within GDLS Supplier Instruction QCS 83-4 revision "F" dated July 2000 and for FAT within QCS-4 dated August 2001. Test sample selection shall be accomplished under the supervision of the Government. Government notification is required to allow test monitoring prior to test start (reference QCS-4, Section 4.2.1). Within 30 days of receiving the FAA requirement notification by activation of the FAA Purchase Order line item you must notify the GDLS Buyer of the test facility name, location, contact, phone number and purchase order/work authorization number.

QY2H.2 (9/26/01) First Article Test (HAB)

(This quality clause is unique to the components supporting the heavy assault bridge (HAB) low rate initial production (LRIP) contract only).

The supplier shall obtain first article approval (FAA) for this assembly or subcomponents,

when a line item is included on this purchase order that requires the delivery of the final test report. The absence of this line item indicates that no FAA has been contracted or is required for this purchase order and a previous approval satisfies the TDP requirements for FAA.

First article approval will be granted upon successful completion of a first article inspection (FAI) and a first article test (FAT). Shipments under this purchase order prior to first article approval are not allowed unless otherwise authorized by

the procuring activity.

FAI and FAT shall be conducted in accordance with the requirements of the technical data package (TDP) (drawing, QAR, production specification and or military specification) and this purchase order. Additional supplier instructions for FAI are contained within GDLS supplier instructions QCS 83-4 revision "F", dated July 2000, except section v, paragraph A. Instead, the first two (2) production pieces produced will be the FAI samples. Likewise for FAT within QCS-4, dated August 2001, except paragraphs 6.1 and 6.3. Instead the first two (2) production pieces produced will be new FAT samples, no destructive testing will be performed, and the FAT samples will be used in production upon successful completion of testing.

Within thirty (30) days of receiving the FAA requirement notification, by activation of the FAA purchase order line item, supplier must notify the GDLS buyer of the test facility name, location, contact, phone number and purchase order/work authorization number.

QY3.6 (1/10/08) C.T. - QCS-4A (TDP)

Supplier shall conduct control test examinations on this item or its subcomponents

in accordance with the requirements of the technical data package when a control test line item is included on this Purchase Order that requires the delivery of the final test certification. The absence of this line item indicates that no control test has been contracted or is required for this Purchase Order. Specific supplier instructions and requirements for control test (s) and reports are contained within the attached QCS-4A. Hardware shipment prior to control test approval is not allowed.

QY4.2 (12/15/88) Control Inspection

Control inspection required on a lot-by-lot basis for dimension and/or performance characteristics imposed per specific requirements of (_____). Frequency of inspection or test, inspection method and inspection results shall be documented and supplied with each hardware shipment to GDLS receiving plant.

QY-10 FLOWCHART/CONTROL PLAN (FC/CP)

The QY-10 is required as part of the Purchase Order (PO), prior to First Piece Inspection (FPI) a Process Flow Chart/Control Plan (FC/CP) is to be developed using GDLS Work Sheet and instructions. **This document is to be attached to the FPI request form.** The request for FPI will not be processed without this document being completed in it's entirety in accordance with instructions. The purpose of FC/CP is to provide a logical pictorial representation of the manufacturing process flow and process control points. The Supplier develops and updates FC/CP as needed if changes occur. This document can be used as an aid for work station development, identifying process control points, defining the methods being used at these control points, and must include all Key Product Characteristics such as KPC/QARs/QAPs and all out sourcing identification.

A walk through of the manufacturing process to include a review of the FC/CP and work instructions should be anticipated as a means to validate process requirements. The FC/CP will be used as part of the Process/Product Validation at FPI and on future GDLS audits.

Summary

- FC/CP completed worksheet required as part of QY11 submittal
- Supplier ensures FC/CP for accuracy
- GDLS/Supplier evaluation of FC/CP to actual process
- Requires updates when Process Flow changes
- FC/CP with sufficient detail to depict the Manufacturing Process

QY32.0 (7/25/00) Process Certification

Process and operator certification of the coating system by the procuring activity is required in accordance with specification 12292894, paragraph 3.9. Certification is required prior to processing material on this purchase order. In addition, certification shall be performed prior to the processing of each purchased lot of materials.

Engineering Quality Requirements

EQA3 – Quality System

The suppliers own Quality System is acceptable for this purchase order item. The supplier is not required to have prior approval of their Quality System by GDLS.

EQA4B – Quality System Approved

The supplier's Quality and/or Inspection System requires approval by GDLS Quality Assurance. The supplier must use the system approved by GDLS Quality Assurance for the services/goods to be provided on this purchase order. Any deviation from this approved system must be approved by GDLS Engineering Quality Assurance prior to start of work.

EQA5 – Quality Management System / Quality Program Plan

General Dynamics Land Systems (GDLS) requires that the supplier shall have an active Quality Management System (QMS) that satisfies the requirements of ISO 9001:2000. The supplier shall submit a copy of their Quality Program Plan (QPP) to:

GDLS Engineering Quality Assurance

Supplier Quality Assurance, Dept. 9685

C/O GDLS Buyer or Subcontract Administrator Identified On This Purchase Order

GDLS Engineering Quality Assurance (EQA) will review the QPP for adequacy and retain it on file for the duration of the subcontract or purchase order. This QPP will be utilized as a record of the supplier's quality system and processes to develop and produce the products (and related services) provided to GDLS. The QPP will also be utilized by GDLS EQA to determine the scope of quality system pre/post-award survey(s), reviews/audits and oversight required. Any revisions made to the QPP by the supplier during the subcontract or purchase order period of performance shall be forwarded to GDLS EQA.

EQB3C – Final Acceptance by the Requester

Final acceptance of this line item will be made by the requester upon satisfactory use.

EQB9E – Certificate of Conformance (COC)

The supplier shall furnish a Certificate of Conformance (COC) with each shipment attesting that the goods/services meet all of the technical data package requirements. Data supporting this COC shall be kept on file and made available to General Dynamics Land Systems (GDLS) upon request. The COC must include signature, date and title of a responsible Quality Representative.

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS Engineering Quality Assurance (EQA) approval prior to shipment. Upon disposition and approval by GDLS EQA, the

supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's COC.

EQB9NDA – Non-Deliverable Certificate of Conformance (COC)

The supplier shall generate a Certificate of Conformance (COC) with each shipment attesting that the goods/services meet all of the technical data package requirements. The COC must include signature, date and title of a responsible Quality Representative. This COC and supporting data shall be kept on file at the supplier's facility and made available to General Dynamics Land Systems (GDLS) upon request.

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS Engineering Quality Assurance (EQA) approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's COC.

EQB10 – Supplier Certification

The supplier, by acceptance of and subsequent delivery on this order, certifies that the item meets the minimum requirements of the technical data package. General Dynamics Land Systems (GDLS) reserves the right to require proof of such conformance.

Exceptions to conformance identified shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS EQA approval prior to shipment.

EQC1H – Inspection Data/Report

General Dynamics Land Systems (GDLS) requires the supplier of this item to furnish inspection results in accordance with the GDLS Engineering Supplier Inspection Standard. This inspection report must address all of the dimensional characteristics, drawing notes, special processes, and all details/subassemblies as (as applicable) as required by the technical data package. Recorded dimensional data is not required for fastener type items used in assembly unless otherwise specified in this order. As a minimum, the supplier shall use an inspection sampling plan in accordance with the following table:

Lot Size	Sample Size
1	1
2-15	2
16-25	3
26-90	5
91-150	8

Product inspected by a sampling plan for delivery on this purchase order must use an acceptance number zero; i.e., accept on zero defects and reject the lot on one or more defects.

Inspected items shall be identifiable to the inspection report in a non-degrading

manner. All inspection reports must include signature, date, and title of the responsible inspection or quality assurance representative and shall accompany each shipment, unless otherwise authorized by GDLS Engineering Quality Assurance (EQA).

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS EQA approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's inspection report and/or Certification of Conformance.

EQC1NDA – Non-Deliverable Inspection Data/Report

General Dynamics Land Systems (GDLS) requires the supplier to inspect this item and document the actual inspection results in accordance with the GDLS Engineering Supplier Inspection Standard. This inspection report must address all of the dimensional characteristics, drawing notes, special processes, and all details/subassemblies as (as applicable) as required by the technical data package. Recorded dimensional data is not required for fastener type items used in assembly unless otherwise specified in this order. As a minimum, the supplier shall use an inspection sampling plan in accordance with the following table:

Lot Size	Sample Size
1	1
2-15	2
16-25	3
26-90	5
91-150	8

Product inspected by a sampling plan for delivery on this purchase order must use an acceptance number zero; i.e., accept on zero defects and reject the lot on one or more defects.

Inspected items shall be identifiable to the inspection report in a non-degrading manner. All inspection reports must include signature, date, and title of the responsible inspection or quality assurance representative. The inspection report(s) shall be kept on file at the supplier's facility and made available to GDLS upon request.

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report

(SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS Engineering Quality Assurance (EQA) approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number

shall be noted on the supplier's inspection report and/or Certification of Conformance.

EQC2C – First Piece Inspection (FPI) Report for Casting or Forging

General Dynamics Land Systems (GDLS) requires the supplier of this item to perform a First Piece Inspection (FPI) for casting/forging dimensions. For each lot produced, the supplier shall perform FPI and furnish inspection results in accordance with the GDLS Engineering Supplier Inspection Standard. GDLS internal specifications, military specifications, drawings and/or other documents which are part of the purchase order and/or technical data package shall be utilized to establish first piece acceptability. All inspection reports must include signature date and title of the responsible Inspection or Quality personnel and shall accompany each shipment, unless otherwise authorized by GDLS EQA. Data supporting the inspection (i.e.; nondestructive inspection/testing results, xrays, material certifications, etc.) shall be kept on file and made available to GDLS upon request.

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS Engineering Quality Assurance (EQA) approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's inspection report and/or Certification of Conformance.

EQC2NDA – Non-Deliverable FPI Report for Casting or Forging

General Dynamics Land Systems (GDLS) requires the supplier of this item to perform a First Piece Inspection (FPI) for casting/forging dimensions. For each lot produced, the supplier shall perform FPI in accordance with the GDLS

Engineering Supplier Inspection Standard. GDLS internal specifications, military specifications, drawings and/or other documents which are part of the purchase order and/or technical data package shall be utilized to establish first piece acceptability. All inspection reports must include signature date and title of the responsible Inspection or Quality personnel. The inspection report(s) shall be kept on file at the supplier's facility and made available to GDLS upon request. Data supporting the inspection (i.e.; nondestructive inspection/testing results, xrays, material certifications, etc.) shall be kept on file and made available to GDLS upon request.

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS Engineering Quality Assurance (EQA)

approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's inspection report and/or Certification of Conformance.

EQC4B – First Piece Inspection Report for End Item Assembly

General Dynamics requires the supplier of this item to perform a complete First Piece Inspection (FPI). The supplier shall perform FPI and furnish inspection results in accordance with the GDLS Engineering Supplier Inspection Standard. This inspection report must address all of the dimensional characteristics, drawing notes, special processes, and all details/subassemblies (as applicable) as required by the GDLS Technical Data Package. Recorded dimensional data is not required for fastener type items used in assembly unless otherwise specified in this order.

All inspection reports must include signature, date, and title of the responsible inspection or quality assurance representative and shall accompany the first shipment, unless otherwise authorized by GDLS Engineering Quality Assurance (EQA).

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS Engineering Quality Assurance (EQA) approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's inspection report and/or Certification of Conformance.

EQC4NDB – Non-Deliverable FPI Report for End Item Assembly

General Dynamics requires the supplier of this item to perform a complete First Piece Inspection (FPI). The supplier shall perform FPI in accordance with the GDLS Engineering Supplier Inspection Standard. This inspection report must address all of the dimensional characteristics, drawing notes, special processes, and all details/subassemblies (as applicable) as required by the GDLS Technical Data Package. Recorded dimensional data is not required for fastener type items used in assembly unless otherwise specified in this order.

All inspection reports must include signature, date, and title of the responsible inspection or quality assurance representative. The inspection report(s) shall be kept on file at the supplier's facility and made available to GDLS upon request. Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS Engineering Quality Assurance (EQA) approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's inspection report and/or Certification of Conformance.

EQC5C – Inspection Report (100%)

General Dynamics Land Systems (GDLS) requires the supplier of this item to furnish a copy of the actual inspection and/or test values/data in accordance with the GDLS Engineering Supplier Inspection Standard for each item with each shipment. Actual values vs. "pass/fail" data is preferred, except for those characteristics typically inspected with pass/fail equipment (i.e., fasteners, threaded holes, etc.) The inspection report must address all of the dimensional and functional characteristics, drawing notes and special processes required by

the technical data package. All inspection reports must include signature, date, and title of the responsible Quality Representative and shall accompany each shipment, unless otherwise authorized by GDLS EQA.

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS EQA approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's inspection report and/or Certification of Conformance.

EQC5NDA – Non-Deliverable Inspection Report (100%)

General Dynamics Land Systems (GDLS) requires the supplier to inspect each item and record actual inspection and/or test values/data in accordance with the GDLS Engineering Supplier Inspection Standard. Actual values vs. "pass/fail" data is preferred, except for those characteristics typically inspected with pass/fail equipment (i.e., fasteners, threaded holes, etc.) The inspection report must address all of the dimensional and functional characteristics, drawing notes and special processes required by the technical data package. All inspection reports must include signature, date, and title of the responsible Quality Representative. The inspection report(s) shall be kept on file at the supplier's facility and made available to GDLS upon request.

Prior to delivery of any hardware which contains nonconformance(s) to the referenced specification(s) or GDLS Technical Data Package, the exceptions to conformance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS EQA approval prior to shipment. Upon disposition and approval by GDLS EQA, the supplier will be notified and provided a unique disposition number. This number shall be noted on the supplier's inspection report and/or Certification of Conformance.

EQD1F – Acceptance Test Procedure/Acceptance Test Report

General Dynamics Land Systems (GDLS) requires the supplier to submit an Acceptance Test Procedure (ATP) for the end item deliverable hardware. This procedure shall, as a minimum, address/include the following:

1. A detailed test method for each performance characteristic of the hardware being supplied.
2. A list of test equipment to be used with a diagram of the test setup.
3. Each test method shall be clearly cross referenced to the performance characteristic in the technical data package.
4. The ATP shall identify the test data recording format (test data sheets are preferred). Actual values/data vs. "pass/fail" criteria is preferred except for those characteristics typically inspected with pass/fail equipment.
5. The ATP shall have a unique document number and date, shall be revision controlled, and changes noted on a revision page in the document.
6. The ATP shall be signed and dated by the supplier's Quality Assurance organization representative.

The ATP shall be submitted for approval 30 days prior to the first scheduled acceptance test. For approval, submit the test procedure to:

GDLS Engineering Quality Assurance

Supplier Quality Assurance, Dept. 9685

C/O GDLS Buyer or Subcontract Administrator Identified On This Purchase Order

GDLS will provide ATP approval in writing. GDLS approval of supplier's test procedure does not relieve the supplier from meeting all requirements of the

specifications, drawing and other technical data. GDLS written ATP approval shall be kept on file by the supplier.

GDLS requires the supplier to submit an Acceptance Test Report (ATR)/Data Sheet(s) when functional/performance acceptance testing is completed on the end item deliverable hardware. Calibration dates for test equipment used during ATP shall also be provided with the submittal.

EQD2C – GDLS Source Inspection Required

General Dynamics Land Systems (GDLS) source inspection/acceptance is required on this order. The supplier's responsible Quality Assurance Representative shall notify GDLS five (5) working days prior to start of final acceptance test or inspection to allow for scheduling of a GDLS Quality Representative to be in attendance. The method of notification shall be the GDLS Source Inspection Request Form located in the appendix at the end of this form.

The supplier shall have technical data (e.g. drawings, specifications, certifications, procedures, etc.) available for use in support of source acceptance. Unless otherwise arranged with GDLS Engineering Quality Assurance (EQA), acceptance testing shall be performed/validated by the supplier prior to GDLS notification.

Exceptions to conformance identified prior to source inspection/acceptance shall be delineated on the GDLS Supplier Quality Material Report (SQMR). The SQMR form, with completion and submittal instructions, is located at the end of this form in the appendix.

Exceptions to conformance require GDLS EQA approval prior to shipment.

EQE2C – Automated Test Equipment Software Evaluation/Approval by GDLS

All software used in the automated testing of supplied products shall be evaluated and approved by General Dynamics Land Systems (GDLS). This evaluation may consist of:

1. Line by line review of the source code (or equivalent).
2. Demonstration of the software operation by the supplier.

Both methods of evaluation shall be solely at the discretion of GDLS.

All software approved by GDLS will be version controlled by the supplier. The plans/procedures for control are subject to approval and subsequent audit by GDLS. All subsequent changes to the software are subject to approval by GDLS. Supplier shall notify GDLS two (2) weeks prior to end item testing (e.g., acceptance testing, drawing requirements, etc.) for evaluation of new or revised software. Notification point of contact is the GDLS buyer identified on this purchase order.

EQE3C – Embedded Software Evaluation/Approval by GDLS

Embedded software required for the operation of supplied products shall be evaluated and approved by General Dynamics Land Systems (GDLS). This evaluation may consist of:

1. Line by line review of the source code (or equivalent).
2. Demonstration of the software operation by the supplier.

Both methods of evaluation shall be solely at the discretion of GDLS.

All software approved by GDLS will be version controlled by the supplier. The plans/procedures for control are subject to approval and subsequent audit by GDLS. All subsequent changes to the software are subject to approval by GDLS. Supplier shall notify GDLS two (2) weeks prior to product delivery for evaluation of new or revised software. Notification point of contact is the GDLS buyer identified on this purchase order.

EQF2C – Weld Procedures, Weld Samples and Welder Certifications

General Dynamics Land Systems (GDLS) requires Weld Procedure Specifications (WPS) and weld sample(s) shall be furnished to the GDLS Division at the address listed below, at least two (2) weeks in advance of welding. WPS and weld samples are to be used for producing parts against this purchase order and shall be prepared using the guidelines contained in specifications AWS D1.1/D1.1M, AWS D1.2/D1.2M, AWS D1.3/D1.3M, AWS D1.6/D1.6M or the applicable specification.

GDLS WPS approval shall be for a period of three years, provided the parts that have not been affected by design changes or drawing revisions during this period. Following approval of the WPS, the weld sample(s) will be returned to the supplier and shall be retained for a period of no less than seven years.

Welder Certifications shall be in accordance with the guidelines contained in specifications AWS D1.1/D1.1M, AWS D1.2/D1.2M, AWS D1.3/D1.3M or AWS D1.6/D1.6M or applicable specification. All welding shall be traceable to the certified individual, with records maintained for no less than seven years and made available upon request.

When non-destructive testing (NDT) of welds is specified on the drawing or model, all

inspection and/or testing shall be performed by an inspector certified to the applicable NDT specification(s).

Joint Systems Manufacturing Center (JSMC) (formerly Lima Army Tank Plant)
1161 Buckeye Road
Lima, OH 45804
Attn: Material Control Laboratories
(419) 221-8004

EQJ1C – Calibration Certification

The supplier shall furnish a certificate attesting that the calibration of each item of measuring and/or test equipment being delivered on this order is traceable to the National Institute for Standards and Technology (NIST).

The certification shall include the date of calibration and the signature of a legally responsible officer of your company.

In the event the equipment requiring calibration is out of tolerance, the actual measured out of tolerance values must be delivered with the equipment.

If requested on the purchase order, the supplier shall furnish service and calibration manuals for each model of the measuring and/or test equipment being delivered.

EQJ8.1A – Government Selective Evaluation

During performance on this order, your Quality Control or Inspection System and manufacturing processes may be subject to review, verification and analysis by authorized government representatives. Government release of product prior to shipment is not required unless you are otherwise notified by General Dynamics Land Systems Purchase Order supplement.

EQK3E – High Strength Fastener Certification

The supplier is hereby directed by General Dynamics Land Systems (GDLS) to supply high strength bolts or screws, American grades 5, 8, or "BD", or metric classes 8.8, 10.9 or 12.9. These fasteners must be traceable to a recognized manufacturing source (as identified by the bolt head logo) that is approved by GDLS Quality Assurance. GDLS Engineering Quality Assurance or the GDLS buyer identified on the purchase order can be contacted to obtain the list of approved manufacturers.

The fastener supplier shall furnish certifications with the shipment which documents the actual material chemistry, core hardness or tensile strength and plating requirements as specified and as applicable.

GDRS Quality Clauses

ROB1.0 – AS9100 Quality System

Supplier shall maintain a Quality Management System in accordance with SAE AS9100B.

ROB12.0 – Material/Process Conformance

The Supplier shall submit with each shipment a certificate signed by an Authorized Representative of the Supplier's Quality Department. The certificate shall state that the materials furnished to us are in conformance with applicable requirements of the contract, Purchase Order, drawings and specifications and that supporting documentation, to include inspection/test reports, are on file and available to the buyer or his Customer Representatives upon request.

Certification shall include name of manufacturer for materials being supplied, quantity shipped and contract or Purchase Order number.

ROB19.0 – ESD

All ESD sensitive items shall be handled, packaged and identified in accordance with MIL-STD-1686 and MIL-STD-129, or best commercial, as applicable.

ROB23.0 – Buy American Act FAR 25.102

1) The Buy American Act requires that only domestic end products be acquired for public use, except articles, material, and supplies--

- a) For use outside the United States;
- b) For which the cost would be unreasonable, as determined in accordance with 25.105;
- c) For which the agency head determines that domestic preference would be inconsistent with the public interest;
- d) That are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities, of satisfactory quality (see 25.108); or
- e) Purchased specifically for commissary resale.

2) Unless agency regulation prescribes otherwise)

The contracting officer may make a non availability determination under 25.102(a)(4) for an acquisition if—

- (i) The acquisition was conducted by full and open competition;
 - (ii) The acquisition was synopsisized under 5.201; and,
 - (iii) No offer for a domestic end product was received; or
- b) The head of the contracting activity or designee may make a nonavailability determination under 25.102(a)(4) for any circumstance other than that specified in paragraph [h (b)(1) of this section.

ROB25.0 – Government Property

The Supplier shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Federal Acquisition Regulation, Part 45.

ROB26.0 – IPC/EAI J-STD-001C Class 1

The supplier shall utilize and maintain proven electronic fabrication procedures and manufacturing processes for producing quality electronic product, which meet the requirements defined in IPC/EIA J-STD-001C, CLASS 1 General Electronic Products.

ROB26.1 – IPC/EAI J-STD-001C Class 2

The supplier shall utilize and maintain proven electronic fabrication procedures and manufacturing processes for producing quality electronic product, which meet the requirements defined in IPC/EIA J-STD-001C, CLASS 2 Dedicated Service Electronic Products.

ROB26.2 – IPC/EAI J-STD-001C Class 3

The supplier shall utilize and maintain proven electronic fabrication procedures and manufacturing processes for producing quality electronic product, which meet the requirements defined in IPC/EIA J-STD-001C, CLASS 3 High Performance Electronic Products.

ROB27.0 – IPC-A-610B Class 1

The supplier shall maintain the requirements of standard IPC- A -610B, “Acceptability Requirements of Electronic Assemblies” for CLASS 1 General Electronic Products.

ROB27.1 – IPC-A-610B Class 2

The supplier shall maintain the requirements of standard IPC- A -610B, “Acceptability Requirements of Electronic Assemblies” for CLASS 2 Dedicated Service Electronic Products.

ROB27.2 – IPC-A-610B Class 3

The supplier shall maintain the requirements of standard IPC- A -610B, “Acceptability Requirements of Electronic Assemblies” for CLASS 3 High Performance Electronic Products.

ROB29.0 – Quality Flow Down

The supplier’s Quality System shall assure all relevant purchase order requirements are flowed–down to their sub-tier suppliers. The supplier’s sub-tier suppliers are responsible to comply with the same specifications and requirements specified on this purchase order.

ROB30.0 – Foreign Object Elimination

The material that is supplied on this purchase order shall be manufactured in an environment that is free of foreign objects. Material supplied shall be free of foreign objects. The intent of this quality note is not to necessarily change manufacturing processes but to maintain continual awareness of the need to eliminate foreign objects for all supplied material.

ROB31.0 – Non-Conforming Material

Nonconforming material at the supplier’s location shall not be shipped without written approval from the GDRS Procurement agent and Quality Manager. Requests for authorization to ship nonconforming material shall be addressed in writing to the GDRS Procurement agent. The Deviation Request form QF 4.2E, is the GDRS document used to obtain GDRS’s concurrence and approval.

ROB32.0 – DFARS 252.225-7014

This order is issued under a United States Government Department of Defense prime contract or subcontract, and the regulations of the below identified clauses set forth in the Federal Acquisition Regulations (FAR) or DOD FAR Supplement (DFAR) in effect on the date of this order are incorporated herein by reference, it being understood that as used therein, the terms "Government" and "Contracting Officer" shall be deemed to mean buyer, "Contractor" seller, and "Contract" this purchase order or subcontract. The identified requirements also apply to the seller's sub-tier suppliers and sub-contractors. DFARS 252.225-7014 - Preference for Domestic Specialty Metals.

ROB31.1 DFARS 252.225-7014, Alt. 1

This order is issued under a United States Government Department of Defense prime contract or subcontract, and the regulations of the below identified clauses set forth in the Federal Acquisition Regulations (FAR) or DOD FAR Supplement (DFAR) in effect on the date of this order are incorporated herein by reference, it being understood that as used therein, the terms "Government" and "Contracting Officer" shall be deemed to mean buyer, "Contractor" seller, and "Contract" this purchase order or subcontract. The identified requirements also apply to the seller's sub-tier suppliers and sub-contractors. DFARS 252.225-7014, Alternate 1 - Preference for Domestic Specialty Metals.

ROB32.2 DFARS 252.211-7003

This order is issued under a United States Government Department of Defense prime contract or subcontract, and the regulations of the below identified clauses set forth in the Federal Acquisition Regulations (FAR) or DOD FAR Supplement (DFAR) in effect on the date of this order are incorporated herein by reference, it being understood that as used therein, the terms "Government" and "Contracting Officer" shall be deemed to mean buyer, "Contractor" seller, and "Contract" this purchase order or subcontract. The identified requirements also apply to the seller's sub-tier suppliers and sub-contractors. DFARS 252.211-7003 - Item Identification and Valuation. (UID Labels).

ROB32.3 DFARS 252.211-7006

This order is issued under a United States Government Department of Defense prime contract or subcontract, and the regulations of the below identified clauses set forth in the Federal Acquisition Regulations (FAR) or DOD FAR Supplement (DFAR) in effect on the date of this order are incorporated herein by reference, it being understood that as used therein, the terms "Government" and "Contracting Officer" shall be deemed to mean buyer, "Contractor" seller, and "Contract" this purchase order or subcontract. The identified requirements also apply to the seller's sub-tier suppliers and sub-contractors. DFARS 252.211-7006 - Radio Frequency Identification. (RFID).

ROB4.01 – Special Process Approval

The Supplier and any sub-tier Supplier engaged in special processes (Examples: soldering, cleaning, x-ray, welding, magnetic particle and penetrate inspection, heat treating, plating, painting) shall be controlled. The Supplier shall have special process approval or approval of the Supplier's system to control these special processes and his sub-tier's special processes. After approval, the supplier and sub-tier supplier's special processes are subject to re-audit or recertification. Processes (Examples: soldering, cleaning, x-ray, welding, magnetic particle and penetrate inspection, heat treating, plating, painting) shall be controlled. The Supplier shall have special process approval or approval of the Supplier's system to control these special processes and his sub-tier's special processes. After approval, the supplier and sub-tier supplier's special processes are subject to re-audit or recertification.

ROB4.02 – Special Process Approval

The Supplier and any sub-tier Supplier engaged in special processes (Examples: soldering, cleaning, x-ray, welding, magnetic particle and penetrate inspection, heat treating, plating, painting) shall be controlled. The Supplier shall identify any sub-tier special process provider and shall not change sub-tier without approval from the BUYER. After approval, the supplier and sub-tier supplier's special processes are subject to re-audit or recertification.

ROB7.0 – First Article Inspection

The Supplier shall submit a First Article for inspection and/or test as applicable prior to the production of the balance of the order. All assemblies and components shall be manufactured using the same production equipment, procedures, and processes, which will be used in filling the contract. All inspection measurements and/or test data as applicable must be recorded on a document normally used by the Supplier, or the Buyer, to record inspection test results. Documentation for each First Article item shall include;

1. Inspection/Test Report(s), with actual dimensions or test results recorded.
2. Mill Reports/Certifications for all raw materials, as required.
3. Heat Treat Certifications, as required.
4. Finish Certifications, as required.
5. A Certificate of Conformance referencing the Part Number, Revision, and Purchase Order Number.

The "First Article" documentation submitted shall have the Purchase Order/Sub-Contract number referenced thereon and must accompany the delivery of each First Article item to be delivered.

ROB7.01 – First Article Inspection Lapse

A First article shall also be submitted whenever there is a lapse in production for a period in excess of 2 years or whenever a change occurs in manufacturing processes, inspection method, location of manufacture, tooling or material used, drawing or specification, which significantly affects the form, fit or function of the product as determined by the Buyer.

ROB7.02 – First Article Inspection Balloon

The appropriate drawing representing the First Article Inspection shall be ballooned (“bubbled”) such that the numbered balloons shall correspond to the numbered FAI Report. All dimensions, tests and notes shall be enumerated on the FAI Report.

APPENDIX

Link to SQMR: <http://procurement.gdls.com/forms/SQMR%20Form%20.pdf>

Link to Source Request/FPI Request form:

http://procurement.gdls.com/forms/QY11_EQD2A%20Form.pdf