FILE NO. _____

SPECIFICATION

GENERAL DYNAMICS
Electric Boat

COMPONENT NO.

CLASSIFICATION NOS. _____

EB Spec. 2678Q

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REVISIONS

REV.	EB APPROVAL	DATE	OTHER APPROVALS	DATE
L	R. SLACK	3/9/2012		
M	N.E. BECKWITH	2/9/2016		
N	A. SEDERHOLT	2/19/2021		
P	J. RUSSO	6/14/2022		

Electric Boat/HII-NNS Use:
Materials supplied in accordance with the Quality Control requirements of Electric Boat Specification 2678 Revision Q are fully interchangeable with materials supplied previous Revisions of EB-2678. All future procurements shall be to Revision Q.

1.0 RECORD OF REVISIONS

Q	Various	• Complete rewrite to reduce redundant requirements with purchase order requirements, quality specifications, and standard clauses. Specific changes are not noted but available upon request. • See Revision P for history of previous changes

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2.0 OVERVIEW & APPLICABILITY

2.1 This specification provides the quality assurance required of suppliers providing material to Electric Boat, Huntington Ingalls Industries – Newport News Shipbuilding (HII-NNS), and our customer. These requirements are in addition to the basic quality requirements (MIL-I-45028, MIL-Q-9858A or ISO9001:2015 with Supplemental Technical Requirements) cited elsewhere in the purchase order.

2.2 **Flow Down Requirement:** It is the responsibility of the supplier to ensure all applicable portions of the purchase order, including those of this specification, are transmitted to all sub-tier suppliers via a purchase order or some other contractual means.

2.3 This specification applies to any material or service procured by the Purchaser. If any discrepancy, differences or conflict exist between the ordering data, the drawings and/or specifications, or if clarification or direction of how to proceed is required by the supplier, a Vendor Information Request (VIR) is to be submitted to resolve the conflict. VIRs must contain justification and technical rational as necessary. The supplier shall not proceed until the VIR is adjudicated except at their own risk.

2.4 Suppliers performing work or services in accordance with this specification shall establish and maintain an auditable Quality Management System (QMS) which complies with the invoked quality requirements to ensure the quality and adequacy of the item or service provided. In addition, the QMS will control the collection and issuance of Objective Quality Evidence (OQE) required to satisfy purchase order deliverables. The supplier shall provide the Purchaser upon request with their most recent version of their QMS and revisions that occur during performance of the contract.

2.5 Appendix A identifies the additional quality assurance requirements for Level I material. Any procurement or technical requirement that reference either '7010' (NAVSEA 0948-LP-045-7010) or '6010' (NAVSEA 0900-070-6010) refers to Level I material and requires the supplier to meet both the Body and Appendix A of this Specification. The supplier is not required to obtain a copy of '6010' or '7010'.

2.6 See Appendix C for a glossary of terms used within.

3.0 OFFICIAL RECORDS

3.1 The supplier shall maintain legible Official Records necessary to demonstrate and verify achievement of the quality requirements specified in the purchase order.

a) When required by the purchase order, suppliers must submit certified statements of conformance.

b) Statements of conformance must be positive and unqualified and must be dated after all required OQE.

NOTE: In the event OQE is corrected in order to comply with the requirements of this specification and after the item's Certificate of Conformance is issued, a new Certificate of Conformance is not required to be generated or provided.

c) When a person, other than the one who performs the inspection or test activity, signs an official record, they must indicate for whom they are signing (e.g. J.W. Brown(signature) for D.W. Smith (printed).

d) The supplier must submit Official Records with the name, title, and signature of the company representative or a company controlled stamp.

1) Authentic signatures, including initials, must include employee identification numbers, if assigned, and dated using permanent marking.

2) If the Supplier elects to use digital signatures on Official Records, the digital signature must be controlled by a Public Key Infrastructure (PKI). The method of control used by the supplier must be capable of being validated by the purchaser or the Government through audit, surveillance, or inspection. See additional requirements in purchase order standard clauses, if applicable.

e) The supplier must submit the required test data, including material certification data – chemical analysis, mechanical and physical testing, etc. – on the testing company's letterhead.

1) When testing is performed by a third party, the supplier may provide a test report under their letterhead listing the results of all tests performed. In such cases, the supplier's report shall clearly denote that the data is transcribed data. Suppliers must include copies of the original testing results on testing activity letterhead.

f) Using ditto marks and continuation arrows for repeated data, initials, or signatures is prohibited.

3.2 Corrections to Official Records

a) The supplier must establish a process to correct Official Records.

b) Erasure or obliteration of information on Official Records is prohibited. Corrected information must remain legible.

1) Corrections to Official Records shall be marked by drawing a single line through the incorrect entry, entering the correct information, and clearly annotating the person making the correction and the date of the correction.

c) The supplier's process must restrict corrections of Official Records to the person who made the original entry, a supervisor, or person assigned by a supervisor.

d) The supplier is prohibited from correcting another supplier's official record without written authorization from the Purchaser.

e) If the supplier reproduces OQE documents to correct or add information, the supplier must mark the revised OQE documents with "**CORRECTED COPY**" and identify all changes. Both the original date and corrected date must exist on the revised document.

f) When additional information is added to a document (PO & line item, for example) or re-identified, or any other additions that do not affect data on the OQE, it shall be initialed and dated.

3.3 Official Record Retention

a) The supplier must retain all test and inspection records not provided to the Purchaser that support purchase order deliverables, reports of nonconformance and any record identified in this document as an Official Record for a period of ten (10) years after accepted delivery of the last item of the purchase order. Where work is performed under continuing contracts or on other than a contractual basis, these records shall be retained for ten (10) years from the date the work was performed.

b) Official Records shall be made available to the Purchaser as soon as practical upon request, but not exceeding 3 business days from the date of the request without justification.

3.4 Destruction of Records

All records must be destroyed pursuant to their data sensitivity controls.

3.5 Electronic Record Retention

a) Suppliers may elect to retain Official Records on electronic media, if allowed by data sensitivity controls.

b) If suppliers elect to retain Official Records on electronic media, a documented process must be established to periodically review records generated and retained in the supplier's information systems. The supplier's review must, at a minimum, evaluate for appropriate information access control, password protection, backup protection, data integrity, and legibility.

c) The supplier is not obligated to retain physical records when records have been retained on electronic media.

3.6 Security Markings on Documents

See purchase order for general security marking requirements.

4.0 DRAWING AND DOCUMENT CONTROL

4.1 The Purchaser does not, in all cases, procure to the latest revision of the specification or approved drawing, nor does a 'Cancellation Notice' revise the revision stated in the purchase order. The required revision is that specified in the purchase order, unless a 60-11 series Standard Clause is invoked. If the Effective Date is not given in the purchase order then the invitation to bid date is considered the specification Effective Date.

4.2 Drawings must be submitted and approved through the VDER process as required by the PO. The supplier assumes all responsibility when work is performed to unapproved drawings.

5.0 DESIGN CHANGES

5.1 Any changes to the design of an item or to a service being procured by the purchase order must be submitted on a VIR.

5.2 Where commercial brand names or names of specific manufacturers are specified in the purchase order together with terms such as "similar to" and "or equal", such identification is intended to be descriptive, but not restrictive, and is to indicate the quality and characteristics of products that will be satisfactory. Material or part substitution requires VIR submitted for Purchaser's review.

5.3 If the product or procedures specified have been approved by the Purchaser or the Government to qualify the product and to permit the supplier to become a qualified source for the product, the supplier shall not change the process, material, Original Equipment Manufacturer (OEM) material sources or procedure without prior approval by the purchaser via a VIR or VPAR. This includes items on the Qualified Parts List – QPL.

6.0 GENERAL MATERIAL CONTROL

NOTE: Material identified as Level I shall be controlled in accordance with the requirements herein and in Appendix A

6.1 The supplier shall perform or have performed all necessary inspections and tests to ensure that the material procured from sub-tier suppliers conform to all requirements, even when a sub-tier supplier performs a required inspection or test. Inspection data with inspection results supporting the certificate of conformance shall be maintained as Official Records.

6.2 The degree of sub-tier supplier oversight shall be dependent on the complexity of the item being purchased, its material level, and the sub-tier's quality performance record. The supplier must ensure that their sub-tier suppliers are capable of attaining and maintaining quality management acceptable to the Purchaser for supplies and services covered by the purchase order. Oversight shall be maintained through a written process by one or more of the following, at a minimum:

a) Conducting quality audits, surveillances and source inspections at the sub-tier facility to ensure that the sub-tier supplier is capable of attaining and maintaining a quality system acceptable to the Purchaser for supplies and services covered by the purchase order.

b) Performing chemical and mechanical testing (quantitative analysis), on a sample basis, to confirm reported results on test reports

c) Performing generic alloy identity tests (semi-quantitative analysis), on a sample basis, to assure the proper alloy is being supplied(Not Applicable to Level I material)

d) Utilizing supplier receipt inspection history with material/service acceptance trending over time (Not Applicable to Level I material)

6.3 Items or material requiring traceability to OQE shall be stored and processed such that positive identity between OQE and individual units of material/components is maintained. During in-process manufacturing and in-process storage when individual marking is not practical, totes, bags, or boxes identified properly and accompanied by a properly identified process traveler, are a suitable alternative to permanent marking, provided the identity is maintained at all times.

6.4 Permanent marking methods shall be in accordance with MIL-STD-792.

6.5 Finished items shall be permanently marked in an area that is readily accessible and unlikely to be obliterated after receipt by the Purchaser, unless direction is given otherwise in the purchase order.

a) Items authorized to ship with approved non-conformances require the associated VIR number(s) to be permanently marked on the product as described above.

6.6 When material is worked or heat treated and results in changes to its mechanical properties, the mechanical properties shall be re-determined and the material shall be uniquely re-identified to provide traceability to the final heat treatment and mechanical properties certified for that material. Furnace charts shall be retained by the supplier, unless otherwise specified, as OQE for audit purposes.

6.7 Unless specifically authorized in the purchase order, only seamless pipe and tubing shall be used in items/components supplied. The supplier's material control system must assure that seamed pipe and tubing is controlled such that it cannot be mixed with seamless pipe and tubing. This material control requirement must be passed on to the supplier's mill or distribution sources and sub-tier suppliers.

7.0 NON-CONFORMING MATERIAL CONTROL

7.1 Non-conforming material shall be physically segregated from conforming material as soon as the material is found to be non-conforming and must be uniquely identifiable and controlled. The method of identification shall identify the material as not meeting purchase order requirements.

NOTE: Where material is a large assembly and physical segregation is not practical, the entire assembly shall be clearly identified as non-conforming until the non-conformance has been adjudicated.

7.2 If the suppliers concludes that nonconforming material cannot be reworked to conform to the purchase order requirements, but is thought to be usable, the supplier shall submit a VIR for purchaser approval. When submitting a non-conformance VIR, the cause and corrective action shall also be addressed, including action taken to prevent recurrence.

7.3 The supplier shall inform the Purchaser prior to shipment of material of any and all nonconforming conditions and provide evidence of purchaser acceptance (VIR) of such conditions prior to offering material for delivery.

7.4 Non-conforming material can be deemed adequate for use without the purchaser's approval only when the supplier has design authority unless the shop or detail drawing is subject to Purchaser approval. The supplier's internal material review process must be based on the following:

a) The internal material review process is conducted by duly appointed representatives of the supplier's Quality and Engineering organizations and other supplier personnel necessary to determine product adequacy.

b) The nonconformance does not constitute a design change as defined in Appendix C of this specification.

c) Records of the nonconformance and the corrective action(s) assigned are retained as Official Records. Metrics showing scrap, rework and repair activities shall be maintained as an Official Record and submitted to the purchaser upon request.

8.0 MANUFACTURING CONTROL AND SPECIAL PROCESSES

NOTE: Material produced through Forging or Additive Manufacturing shall also be controlled in accordance with the requirements herein and in Appendix D

8.1 Repair welding, bonding, or impregnation in excess of that permitted by the basic material specification, fabrication document, or other governing documents will not be allowed without prior approval by the Purchaser on a VIR.

8.2 When a procedure is required by the purchase order (e.g. NDT, Alloy Identification, forging sketches, upgrade of material from a commercial specification to military specification), or for welding (production or repair) the procedure must be submitted to the Purchaser through a Vendor Procedure Approval Request (VPAR) for approval unless otherwise not required by applicable Electric Boat specification or clauses as applicable/invoked. This VPAR shall be submitted and approved prior to performance of the applicable task. Test results and reports requiring Purchaser approval are also submitted through VPAR.

8.3 When radiography is required, the supplier must conform to the requirements of the applicable Standard Clause e.g. S/C 60-67. Should no Standard Clause address Radiographic Testing that is required by the purchase order, the supplier must submit a VIR for direction.

8.4 The supplier shall notify the Purchaser via VIR of any modifications to dies/patterns/ process tooling which will affect the dimensions of the product. The supplier shall submit a thorough product inspection report of all related dimensions and the reason for the change.

9.0 INSPECTION

9.1 Inspection at Supplier's Plant

The Purchaser and/or Government reserves the right to inspect, surveil, assess and/or audit the supplier's processes, procedures (including NDT & Welding) and systems to verify the conformance of the item(s) and services to the purchase order at any location including sub-tier suppliers at any stage of development or manufacture.

a) Supplier shall provide assistance to the Purchaser's and/or Government's representative during source inspection, audits, assessments or other activities as may be specified and/or allowed by contract.

b) Supplier shall cooperate in establishing dates and times of visits to the plant facilities.

c) Supplier shall provide calibrated measurement & test equipment to the Purchaser and/or Government representatives to check product compliance. If conditions warrant, Supplier's personnel shall be made available for operation of such devices and for verification of their accuracy and condition.

9.2 System 21 Inspection Requirements for Threaded Holes

Threaded holes and fabricated internal threads must be inspected IAW System 21 criteria per FED-STD-H28/20B. Inspection must include use of appropriate size threaded internal functional, fixed limit Go/No Go gages to verify the final tapped hole thread form. In addition, threaded hole minor diameter must be

validated through use of a Go/No Go cylindrical plug gage, an inside micrometer or an Intrimik bore micrometer.

a) 100% inspection of each threaded (tapped) hole shall be performed on items that are specifically identified as requiring System 21 thread inspection on the Electric Boat or HII-NNS drawings or on purchase orders for items that are identified as "Level I and SMC CAT: 1". All other applications may be sample inspected, unless otherwise specified by the applicable drawing.

b) The inspection records shall document accomplishment of the inspection of the threaded (tapped) holes and retained as Official Records. Unless specified elsewhere in the purchase order, inspection OQE is not required to be supplied to Electric Boat or HII-NNS but is subject to audit. The supplier's Certification of Conformance (signifying that the material complies with the purchase order, Specification, and Drawing Requirements) is considered to adequately document accomplishment of this inspection.

9.3 Anaerobic Compound Set Stud Installation Inspection

Where reference is made to DOD-STD-1371 for anaerobic compound set stud installation inspection in this purchase order or in reference documents (i.e. specifications, drawings, etc), Section 8.6.3.5 of SAE J2270 JUN2016 may be used in lieu of Section 4.3 of DOD-STD-1371 revision B, per NAVSEA letters Ser 397T1C/0157 & Ser 450TA/0174.

10.0 CORRECTIVE ACTION SYSTEM

10.1 The supplier must establish and maintain a documented Corrective Action Reporting System (CARS) in accordance with the invoked quality requirements.

10.2 When a nonconformity occurs, including any arising from complaints, the Supplier shall:

a) React to the nonconformity by taking action to control and correct the nonconformity and dealing with the consequences (Implement Control and Corrective Action) any notify to the Purchaser if any of the following impact purchase order requirements:

1) Physical material defect.

2) Loss of material traceability.

3) Incorrect material (e.g., wrong lubricant, wrong metal, wrong software).

4) Loss of test records, or failure to perform tests or inspections.

5) Use of unqualified personnel where qualification is required.

b) Evaluate the need for action to eliminate the cause(s) of the nonconformity by performing a Root Cause Analysis (RCA), including whether the non-conformance exists or may occur elsewhere in the component or in other manufacturing or supporting processes.

c) Implement actions as appropriate to mitigate their recurrence (Preventative Action).

d) Take steps to review the effectiveness of any corrective action taken.

e) Flow down corrective action requirements to an external provider when it is determined that the external provider is responsible for the nonconformity.

f) Take specific actions when timely and effective corrective actions are not achieved.

10.3 The Supplier will ensure that corrective actions are appropriate to the effects of the nonconformities encountered.

a) The organization shall maintain documented information that defines the nonconformity and corrective action management processes.

b) The organization shall retain documented information as evidence of:

1) The nature of the nonconformities and any subsequent actions taken.

2) The results of any corrective action.

10.4 The supplier shall provide notification in the form of a formal Letter of Advisement (LOA) to the purchaser of any non-conformance, latent defect, or suspected fraud or falsification discovered after delivery to the Purchaser. The LOA is required for all non-conformances, or suspected fraud or falsification applicable to the purchaser's material regardless if the non-conformance or latent defect is discovered from a Purchaser's audit (Electric Boat, HII-NNS), DCMA, BPMI, or the supplier's own audit program, or by some other means. Directions for LOA submittal and an LOA template are available in Appendix E.

a) LOAs are required for all non-conformances/deviations from specification or drawing requirements that do not impact form, fit or function of the material.

10.5 The supplier's CARS must manage the prosecution of any Purchaser-issued Supplier Corrective Action Reports (SCAR) for any nonconformance that the Purchase considers to be significant or systemic. SCARs are written to obtain root cause(s) through a valid Root Causes Analysis (RCA) and/or ensure the supplier actions in response to a non-conformance are adequate by evaluating the resulting corrective action(s) and preventive action(s).

11.0 AUDITS

11.1 The supplier shall establish and maintain a quality audit program It is recommended that the supplier also establish and maintain an external review and quality audit program for non-Level I sub-tier suppliers. These programs shall be designed and implemented to determine compliance to purchase order requirements. See Appendix A for Level I sub-tier suppliers.

11.2 Both internal and external audits must be conducted per a documented schedule and utilize a checklist of audit elements that are capable of determining if contract requirements can or are being satisfied. An audit report must document the level of compliance found during the audit (e.g. SAT, Marginally SAT, UN-SAT). Nonconformance(s) discovered as a result of audits (either internal or external) must be clearly documented through the CARS process with required follow-up actions sufficient to determine satisfactory resolution. Records of audits and corrective and preventive actions shall be maintained by the supplier as Official Records and made available for review by the Purchaser upon request.

Audits performed on the supplier by outside entities (DCMA, ISO, etc) that result in finding of a contract specification deviation non-conformance that impact the Purchaser's material shall be communicated to the Purchaser by VIR or LOA as appropriate.

11.3 The supplier must audit their quality assurance program and internal manufacturing systems and/or processes at a frequency documented in their QMS to ensure compliance to their quality program and the requirements of this specification.

NOTE: The supplier may use the NAVSEA PDREP audit checklist in whole or in part as necessary to use or develop an audit checklist. The NAVSEA PDREP audit checklist is available on the Electric Boat Supplier/Quality/Special Process Auditor Guidelines & Audit Checklists website.

Appendix A

APPENDIX A: LEVEL I - MATERIAL QUALITY ASSURANCE REQUIREMENTS

A 1.0 General

A 1.1 The requirements listed below shall be used for Level I material when identified in the purchase orderor on Drawings, in conjunction with the requirements in the body of this specification, and quality assurance requirements, as specified by the applicable purchase order. When more stringent material quality assurance requirements are provided in the Purchaser's purchase order or component specification, they shall take precedence.

A 1.2 Objective Quality Evidence (OQE) will be required for all material (separately furnished or within assemblies) identified as "Level I" in the list of materials (i.e. EBOM – Engineering Bill Of Materials) in the basic design document or purchase order.

A 1.3 The manner in which required OQE is developed by the supplier shall be controlled by clear, complete and current procedure(s). The OQE for the actual item being shipped shall be representative of the individual heat, batch, or lot as defined in the applicable specification and shall be in compliance with the invoked acceptance criteria. However, for continuous melt or continuous pour processes, the OQE shall be representative of the time period (as determined by the invoked specifications) during which the material was poured.

A 1.4 The supplier must identify by procedure where in its process the Level I controls of this Appendix are invoked in their facility.

A 2.0 Quality System Flowdown Requirements

A 2.1 Suppliers of Level I material are required to have an effective QMS which assures their sub-tier suppliers maintain effective systems for controlling Level I material, including traceability to OQE in accordance with the requirements of this document. Any special quality provisions, along with the applicable specifications and/or drawing requirements, shall be included in the purchase order to the sub-tier supplier if the primary supplier invokes Level I requirements on their sub-tier supplier.

A 3.0 Material Control and Identification

A 3.1 Procurement Control

a) The Level I supplier shall establish and maintain a listing of approved Level I sub-tier suppliers.

b) Suppliers who procure material or services used in Level I applications from sub-tier suppliers must assure their sub-tier suppliers of such materials are compliant with the material control and traceability requirements of the Purchaser's purchase order. Suppliers are required to perform on-site audits of their sub-tier suppliers of Level I material unless one of the following applies:

1) The sub-tier supplier is an approved Level I Supplier of the Purchaser at the time of PO issue (available upon request from the Purchaser's Buyer)

2) The starting material is sample tested (one sample per heat/lot) at Receipt Inspection for both chemistry and mechanical properties by a test laboratory other that the sub-tier supplier or mill and comparted to the applicable specification for acceptance.

NOTE: A supplier who is qualified to perform quantitative chemical analysis and/or mechanical analysis has been audited as a test laboratory is considered a test laboratory.

Appendix A

3) The process causes the finished product to be subsequently tested for chemistry and mechanical properties by a test laboratory other than the sub-tier supplier or mill and compared to the applicable specification for acceptance.

4) Material or product in inventory purchased prior to 3/29/10 is sample tested (one sample per heat/lot) for chemistry by a test laboratory other than the sub-tier supplier or mill and compared to the applicable specification for acceptance.

NOTE: Test reports showing the quantitative results of tests noted in 2, 3, and 4 above as applicable are required to be submitted with the certification package.

A 3.2 Purchase Order Review

The supplier's quality representative shall review Level I material purchase orders to sub-tier suppliers prior to placement to ensure that the applicable purchaser's requirements are included (The preparer of a purchase order shall not review his/her own work). The purchase documents which include Level I material shall contain readily recognizable Level I identification.

A 3.3 Receiving Inspection

The supplier shall maintain a Receipt Inspection Program which documents the results of Level I material inspection from their sub-tier suppliers, Processors, or Inspection Organizations to assure conformance to purchase order requirements.

a) Material undergoing receipt inspection shall be physically segregated from accepted material to prevent comingling and unauthorized use.

b) Material markings shall be legible with unambiguous reference in test reports.

A 3.4 Certifications from Sub-Tier Suppliers

a) The supplier shall obtain from sub-tier suppliers a certification of quality conformance for all Level I material in addition to the required test reports. Unless otherwise specified, the certification as a minimum shall state that the material meets specification requirements.

b) Each test report and/or inspection report provided by the sub-tier supplier shall be reviewed by the supplier’s quality personnel prior to releasing the material to inventory. The following minimum requirements shall be verified during the review:

1) Test reports are legible.

2) Material is not from a prohibited source (DFAR compliant per purchase order).

3) The country of origin is readily identified, or has been annotated by the supplier.

4) Test results are compared with and comply with the specification and purchase order requirements.

5) The type of tests and number of tests meet specification and purchase order requirements.

6) Reports are identified with a unique traceability code that agrees with the material marking.

7) Test Reports provide the location of the test specimens, when applicable.

8) Reports are duly authorized/signed by the testing facility Representative and that the data is recorded on an official copy with the testing facilities’ letterhead (See Paragraph 3.2,’Documentation’).

9) Reports are reviewed to ensure no unauthorized changes, obliterations, corrections, and evidence of falsification.

Appendix A

10) The quantity given on the reports is consistent with the quantity of material actually received.

11) Material that has been heat treated is uniquely re-identified in accordance with procurement requirement specifications, standard clause, etal.

12) Dates of reports and signatures thereon agree with the sequence of processing by sub-tier supplier(s).

A 4.0 Material Handling/Storage

A 4.1 Material handling and storage procedures shall provide methods for controlling Level I material from receipt though issue and delivery (ie storage of raw stock, fabrication/manufacture, inspection, installation, storage of finished product, shipping, etc).

A 4.2 Level I material that is awaiting or undergoing inspection or is in storage shall be physically segregated from non-Level I material as soon as possible to prevent comingling and unauthorized use. The method of segregation shall ensure that similar appearing material of different alloys and/or material conditions, grades or condition be segregated through physical separation unless readily differentiated by attributes such as size, or physical appearance.

A 4.3 When physical segregation cannot be accomplished, the supplier's procedures shall define an alternate system of positive control. Storage areas for Level I material shall be distinctly identified and marked.

A 4.4 Material control tags and/or travelers marked "Level I" shall be used to positively identify material in transit to avoid unauthorized movement, comingling and improper use.

A 4.5 When issuing Level I raw stock that has to be cut into pieces, the transfer of markings to each piece is required. This may be accomplished by permanent or temporary marking, Material that is being worked may have the marking temporary removed by machining, a forming process or other processes. A traveler or router can serve as temporary marking as long as the cut, machined, or process pieces are with the traveler or router. However, each piece is to be re-identified with its marking as soon as practical. (see Para A 5.4 c))

A 4.6 Staging of Level I material with other material is acceptable for a specific job or fabrication process, provided the Level I material is clearly marked as required and the material for the specific job or fabrication process is grouped together, identified by the job or process number, and physically segregated from material grouped for other processes or jobs.

A 4.7 Level I nonconforming material must be marked as "Level I" and be segregated from non-Level I nonconforming material. Separate pallets, boxes, or other containers are acceptable.

A 4.8 Level I weld wire shall be controlled by written procedure that covers the life of the wire from receipt to consumption. This procedure must include, but is not limited to storage, issuance, handling, segregation and identification. This procedure must address the following:

a) Level I weld wire shall be stored physically segregated from non-Level I weld wire within an enclosure that prevents commingling and unauthorized use, in a way that the welder does not access (i.e. locked cabinet).

b) Storage areas for Level I weld wire shall be distinctly identified and marked.

c) Physical segregation shall be maintained until the weld wire is identified to a specific end-use.

d) Control of weld wire when not under the direct supervision of the recipient.

e) Scrapped weld wire must be disposed of in a way so as it cannot be retrieved and used.

Appendix A

NOTE: The intent of this requirement is to have control over the storage and issuing of the weld wire. For cabinet, the words locker, crib or other lockable area that the welder does not access are equivalent

A 5.0 Material Traceability

A 5.1 The supplier shall establish a Level I material traceability system that provides positive identity of the item throughout the manufacturing process and through heat treatment, storage, and assembly operations.

A 5.2 When material is worked or heat-treated and resulting in changes to its mechanical properties, the mechanical properties shall be re-determined and the material shall be uniquely re-identified to provide traceability to the final heat treatment and mechanical properties of material in its final condition. (See Paragraph A 8.3 for additional requirements).

A 5.3 Only Level I weld wire is used in welding on a Level I piece of material. The weld wire shall be identified on the welding record.

A 5.4 Material Traceability Marking

a) The traceability marking shall consist of raw material heat number and a lot number (if applicable) or a unique trace code number that provides, through documentation, traceability back to the raw material heat number, processing and heat number (when applicable). In all cases, the traceability marking utilized shall be unique and the associated documentation shall be maintained as Official Records.

b) When the marking on a part or piece of material will be removed by the manufacturing process, the marking shall be transferred to another location on the piece. If marking cannot be transferred to another location, it shall be restored after the completion of the operation. Items too small to mark or items that continually have their marking removed by the various manufacturing operations making it impractical to maintain, can be controlled by the use of totes, bags, and/or boxes identified with the proper traceability information provided the identity is maintained at all times.

c) In all cases, the accompanying paperwork (route sheet, traveler, etc.) shall indicate the proper traceability code and shall be identified “Level I’ in letters that are legible and of sufficient size to be easily recognized. This paperwork shall also provide accountability throughout the manufacturing process (i.e., number of pieces cut, rejected, scrapped, tested, etc.)

d) Male fasteners are to be marked on the top of the head, unless otherwise specified.

NOTE: Material Traceability Marking of Level I material are also applicable to sub-tier suppliers.

A 5.5 Loss of Traceability Marking

Items where the traceability marking is lost are considered nonconforming material. The method of re-establishing traceability shall be approved by the Purchaser for each incident where traceability is lost. This information shall be submitted on a VIR. The supplier can perform tests to absolutely identify the heat from which the item was produced. This requirement is not applicable to items that are uniquely identifiable by their size, configuration and uniqueness of material.

A 6.0 Official Records

A 6.1 Official records shall be maintained that provide a clear and concise documentation trail from the starting material to the finished product and all intermediate process operations.

A 6.2 Each record shall identify the traceability code for the specific item to which it applies. The records shall include or refer to permanent records, which contain the actual processing parameters the product received during manufacturing or inspection. The records shall also show the results of all material testing, the

Appendix A

identity of all material samples selected for testing (including retest samples when required), and the parent material from which the selection was made.

A 6.3 Component assembly records shall include the material traceability code of each part for which traceability is required.

A 7.0 Heat Treatment

A 7.1 Furnace charts shall identify the heat treater, the time of heat treatment, the heat treatment lot number, furnace identification, operation (e.g. temper, anneal, etc.) date, quantity, heat numbers, and item description. In addition, the autographic recorder rate (i.e., inches/hour) shall be annotated. Furnace charts shall be retained by the supplier as Official Records, unless otherwise specified. The material shall be uniquely re-identified to provide traceability to the final heat treatment and mechanical properties certified for the heat treated material.

A 8.0 Finished Product Requirements

A 8.1 Generic Alloy Identity Testing

a) When generic alloy identity testing is specifically required by the purchase order or invoked specifications, the selected sample of parts shall be verified by a suitable nondestructive test to assure that material being provided or installed is of the specified metallurgical group. This test shall be performed by the first-tier supplier or the supplier who assembles the finished product in accordance with a procedure that is approved by the Purchaser.

b) Parts shall be verified at time of final inspection, prior to shipment. However, Level I parts that are inaccessible after assembly shall be verified just prior to installation.

A 8.2 Test Records and Certifications provided to the Purchaser

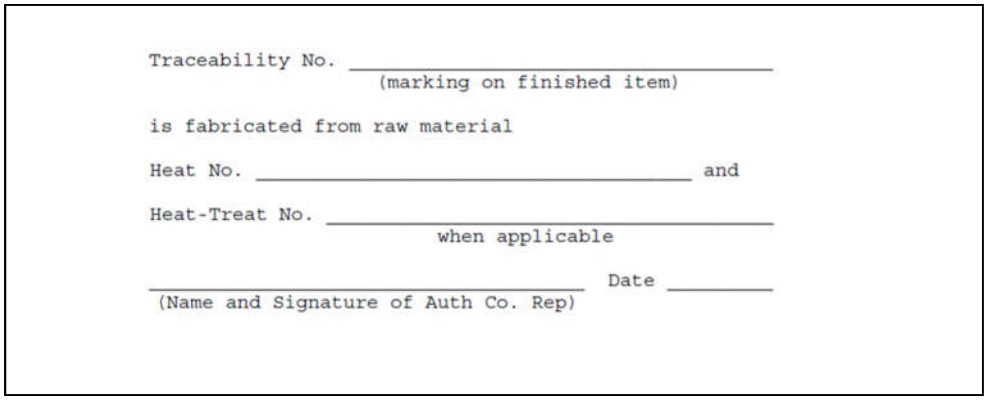
a) Suppliers shall provide total and complete traceability for all Level I material supplied, including Level I parts of assemblies and Level I parts of components. This traceability requires certified material test reports from the producer of the raw material (mill) which contains quantitative mechanical and chemical data (OQE).

b) Where the mechanical properties of the material have been altered by heat treatment or metal working processes, the material shall be uniquely re-identified, and the mechanical properties re-determined. The mill certification shall be accompanied by supplemental certification from the heat treatment or metal working facility. This supplemental certification shall contain quantitative data for the process performed.

Appendix A

c) Additionally, the original mill certification shall be overstamped and/or annotated to contain the following information:

Figure 1: Example of Mill Certification Overstamp



NOTE: When applying an overstamp or annotation to the certification report, no pertinent data shall be obliterated or rendered illegible. Certifications, or Test Reports for Level I materials where the Mechanical Properties have been altered, and are dated after September 1, 2014, will not be accepted by the Procuring Shipyard without the appropriate Overstamping.

d) All chemical and mechanical test reports shall be supplied with a certification that indicates that the test reports represent the actual attributes of the items furnished for the Purchaser's purchase order, and that the test results are in full compliance with all applicable specification and order requirements.

e) In cases of foreign certifications, conversion of foreign language units of measure into U.S. units of measure shall be annotated on the furnished foreign certifications if space permits, or placed on an addendum in the same format as the foreign certification data. Such translation/conversion shall be identified as to origin with name, title, and signature of the authorized representative of the company making the translation/conversion.

f) The country of origin e.g. United States of America or it's outlying areas, shall be identified on the test report, or annotated by the supplier.

A 8.3 Marking Requirements (Finished Product)

a) Permanent marking is required on all Level I material, either separately furnished or in assemblies. The supplier shall verify marking 100%. The marking shall provide the following information, listed in the order of precedence. The following marking requirements are in addition to any specified in the purchase order or specifications:

1) *The Kind of Material:* The specific material designator in accordance with the purchase order.

2) *Supplier Traceability Code* - A code that provides positive traceability to the unique OQE of the piece of material including homogeneous heat, melt, or batch and inspection information. For continuous process material, the specific traceability provisions of applicable procurement specifications apply. Where specific traceability provisions are not contained in applicable procurement specifications for continuous process material, traceability to OQE representative of material supplied is required.

3) *The Finishing Supplier Name, Trademark or Symbol*

Appendix A

NOTE: If all the marking cannot be applied due to space limitations, the supplier shall request permission of the purchaser via a VIR of the marking that will be applied using the order of precedence above, and state the reason why all the markings cannot be applied.

b) Those items that cannot have markings physically applied shall be packaged and the package labeled with all marking required. All items in the package must be in the same homogeneous lot. When removing any material from the package, all material must be labeled or tagged with all the markings on the package, unless being removed from the package for immediate installation.

c) Permanent marking is not required for small items included as part of the pressure boundary of a completed assembly (as documented on specifications, etc - Level I fasteners excluded). However, certification statements relating these small items to objective quality evidence must be provided.

d) All markings shall be legible. Marking shall be located as not to affect form, fit, or function of the item.

e) Marking shall be accessible to permit identification without disassembly, except for justifiable situations when alternative methods (e.g., tagging, assembly records, etc.) of identification shall be used to identify these materials.

f) Marking of fasteners manufactured from hardened material by vibro-etching or integral marking is permitted provided the marking is in an unstressed area.

g) Each fastener shall be marked with the kind of material, supplier traceability code and manufacturer's name, trademark or symbol. In those cases where the fastener specification does not provide a kind of material, or material type, the material shall be marked either with the grade, as specified in the ordering data, or specification, or with the applicable Material Designator per Electric Boat Specification 3952, Material Designators, Marking Requirements.

A 9.0 External Audits

A 9.1 Suppliers of Level I Material

a) The Level I Supplier shall establish and maintain a quality audit program of Sub-Tier suppliers.

b) All external audits will be pre-planned using a checklist of audit elements that are capable of determining if contract requirements can or are being satisfied. An audit report will document the level of compliance found during the audit. Non-conformances will be clearly documented with a supplier corrective action report and required follow-up actions sufficient to determine satisfactory resolution. Records of audits and corrective and preventive actions shall be maintained by the supplier as Official Records.

Appendix B

APPENDIX B: PREVENTION OF FRAUD & FALSIFICATION

B 1.0 Scope

Refer to Terms & Conditions per PO

Additional reference for EB:
http://www.gdeb.com/suppliers/3_doing_business_with_eb/attachments/standards_of_business_ethics_and_conduct.pdf

Additional reference for NNS:

https://hii.com/suppliers/newport-news-suppliers/nns-supplier-ethics-and-compliance/

B 2.0 Prevention of Fraud and Falsification

B 2.1 Suppliers and their Sub-Tiers (management and employees) are contractually obligated to meet all PO requirements, including but not limited to adherence to all applicable laws, regulations, and contract terms and conditions.

B 2.2 Suppliers and their Sub-Tiers shall be vigilant in their efforts to prevent fraud and falsification as it affects contract compliance, impacts costs, and can cause grave safety issues.

NOTE: Suppliers and their Sub-Tiers are made aware through terms and conditions that any falsification, concealment, gross mistake tantamount to fraud, alteration of any material fact, or any false, fraudulent or fictitious statement or representation in connection with the work under the PO resulting in fraud or falsification is not only prohibited by the Purchaser's policy, but may also be punishable under law.

B 2.3 Suppliers must ensure that employees and Sub-Tier Suppliers are provided all the proper and pertinent documentation necessary to perform work in compliance with all contractual requirements, including letters and posters.

B 2.4 Any party aware of, or having reason to suspect, fraud or falsification is obligated to report this violation anonymously or in person to:

a) Local Supervision or Management

b) Purchaser Point of Contact

c) Purchaser Quality Representative

d) Purchaser Buyer

e) Department of Defense Hotline

- Telephone (800) 424-9098
- Website https://www.dodig.mil/Components/Administrative-Investigations/DoD-Hotline
- Mail to:

  Department of Defense Hotline

  The Pentagon

  Washington, DC 20301-1900

  Should such a notification be necessary, information including location, date(s), time, names of people involved, and violation suspected would be most helpful to promote an investigation.

Appendix B

B 3.0 Contract Compliance

B 3.1 To demonstrate contract compliance with this specification, the Supplier is required to perform, and maintain records for, the following:

a) Alert all employees to this (Fraud and Falsification) Appendix during new hire indoctrination.

b) Annually provide refresher training to this (Fraud and Falsification) Appendix for all employees.

c) A Fraud and Falsification notification poster serves as a visible reminder notice, and provides contact information should malpractice or fraud & falsification be observed or suspected. *Suppliers are to post a DOD sanctioned reminder notice* in conspicuous and prominent locations throughout the facility, especially work areas, at a minimum rate of one (1) copy for every fifty (50) employees. An example of a hotline poster can be found at: https://www.dodig.mil/Portals/48/Hotline%20Poster_072022_11x17_v3_1.pdf

d) Include verification during internal quality audits that malpractice and F&F training is performed and reminder notices are posted.

e) Include in audit requirements that auditors be alert for F&F during internal and external quality audits.

f) Perform periodic and independent over-checks of final inspections and testing.

g) Alert all Sub-Tier Suppliers of their F&F prevention obligations through pass down of this specification in Supplier POs.

h) While performing on-site quality audits at Sub-Tier Supplier's facilities confirm and verify Sub-Tier awareness of F&F prevention.

B 4.0 Examples of Fraud or Falsification

- Issuing a procedure or instructions known to contain unauthorized deviation(s) to contractual requirements.
- Knowingly waiving or eliminating a contractual requirement without authority to do so.
- Deliberately accepting unsatisfactory work.
- Intentionally performing unacceptable work.
- Failing to report problems or unsatisfactory conditions in one’s own workmanship.
- Verifying by signature that an action was taken, knowing in fact the action was not taken, or not performing the required checks or verifications to ensure the action was taken.
- Verifying performance of action based on hearsay, not personal observation.
- Tampering with calibrated instruments to avoid rejection of work.
- Falsifying dates on records to comply with frequency or deadline requirements.
- Falsifying data to cover-up a procedure or drawing deviation.
- Falsifying data to have work accepted, thereby avoiding further work or rework.
- Concealing or not reporting information on fraud, or falsification known to have been committed by others.

Appendix C

APPENDIX C: GLOSSARY

Additive Manufacturing- The process of creating a metal shape by building it one layer at a time. Examples are powder bed fusion (PBF) and Direct Energy Deposit (DED)

Authentic Signature – A unique mark or writing by an individual that serves as a validation of identity and intent. It is created by hand and can include variations in style, size, and other characteristics with month, day and year.

Certificate of Conformance: A document which verifies that the action identified has been performed in accordance with the applicable required and the results are as recorded.

Certification – The action or process of providing someone or something with an official document attesting to a status or level of achievement. Certifications shall be based on personal observations, other certified records, or direct reports from assigned personnel.

Contract Compliance – is meant to be "Verbatim compliance", i.e., word for word compliance whether the requirement is in the written word or drawing form. Interpretations, assumptions, intentions, taking for granted, editorial or artistic license, exaggeration, partial or suppressed explanation or truth, the way it was done before, etc. do not satisfy verbatim contract compliance. Should corrections or modifications to the contract, drawings, specifications, ordering data, etc. be necessary, appropriate change documentation as described in the contract (purchase order) shall be submitted and approvals obtained.

Critical Components: items whose plausible failure could injure personnel or jeopardize a mission.

Customer Representative – Purchaser, Customer and/or Prime Contractor.

Design Change - A design change is defined to mean changes to any of the following:

- Drawings approved by the Purchaser or Government
- Specifications listed on documents issued or approved by the Purchaser or Government
- Inspection systems
- Reliability
- Safety
- Weight
- Materials or special requirements
- Unusual inspection or test procedures or equipment
- Any special revision or model identification whether specified in the purchase order, or referenced document.
- Any change that could affect interchangeability (Fit, Form, Function)
- Change to approved manufacturing processes or procedures (1st Article tests, forging sketches, test specimen locations, etc.).

Digital Signature- A mathematical technique used to validate the authenticity and integrity of a digital document, message or software. It is the digital equivalent of a handwritten signature or stamped seal.

Error- when pertaining to compliance, I an unintentional mistake or deviation from accuracy pertaining to compliance. The key being that an error is not intentional.

Forging- metalworking process in which material is heated and then formed using compressive forces.

Fraud and/or Falsification (F&F) – an action that deals with intentional deceit, lies, misrepresentation, falsehood, negligence, dereliction, etc. in regards to contract compliance. Key is the fact that fraud and falsification is intentional.

Generic Alloy Identification - A broad identification of materials by simple, direct, or rapid analysis methods or a combination of methods (e.g., Color, Magnetic Properties Test, Acid Spot Tests, and Metal Comparator Tests).

Appendix C

These tests are designed for simple screening and identification of materials by alloy family (as opposed to classification of specific alloys within a family).

Government Representative - In cases where MIL-I-45208 or MIL-Q-9858 specifies the "Government Representative" or in cases where documents such as MIL-STD-271 or NAVSEA Technical Publication-271 or MIL-STD-2132 specifies the "Government Inspector" the Supplier shall interpret that to include the issuer of the purchase order (i.e. the Purchaser).

Heat Number - The numeric or alpha/numeric designator assigned to material, produced in a common batch or under a continuous pour process, by the activity that produces the material.

Homogeneous Lot - A group of like items that are produced in a common heat or batch, or are produced under a continuous cast or pour process with the same vendor's traceability numbers, are of the same nominal size, and are received in a single shipment. For batch or continuous cast/pour processes, samples for chemical and mechanical properties shall be taken no less than once in every eight hours of operation. If additional production processes are utilized that alter the mechanical properties of the material (e.g., heat treat, cold or hot forge, extrusion), then all items of the same "heat number" and additionally processed under the same conditions at the same time shall be considered as a homogeneous lot.

Identification - The ability to show the required characteristics of a material.

Level I (NAVSUP Level I) – Level I designation is given to components for which the Navy requires a maximum degree of assurance that the chemical composition and mechanical properties of the installed material meets the specified requirements.

Lot Number - The numeric or alpha/numeric designator assigned to material when a process (i.e., heat treatment, hot forged, extrusion, etc.) alters the original mill source mechanical properties of the material. The lot definition may be further defined by the material specification.

Material Lots - Material lots are comprised of a number of associated items grouped collectively and sharing a common reference. For material requiring traceability, lots are referenced to one of the following:

- **Inspection Lot** - Items that are grouped together for inspection.
- **Production Lot** - Items that are grouped together by production process.
- **Shipping Lot** - Items that are grouped together for transporting.

Mechanical Properties - The properties of a material that influence its elastic or inelastic behavior when force is applied, thereby indicating its suitability for mechanical applications (e.g., tensile strength, yield strength, elongation, hardness, etc.).

Objective Quality Evidence (OQE) - Quantitative and qualitative data of all mechanical, chemical, and performance tests performed (as required by the applicable specification, drawing, or purchase document) to prove that material supplied conforms to the specified requirements. OQE is also verification that the action identified has been performed in accordance with purchase order requirements and the results are as recorded.

Official Record- Records that substantiate conformance to contractual requirements, including data entered into automated systems.

Physical Segregation – Segregation that is required to be accomplished by use of separate cages, racks, bins, shelves, boxes, bags, roped off areas or other physical device/barrier.

Procurement Document (Purchase Order) - A written agreement for the procurement of supplies or services that describes what is to be supplied and what requirements are to be met. This document takes precedence over all other documents; written, implied, or specified.

Public Key Infrastructure (PKI) - A set of roles, policies, hardware, software and procedures needed to create, manage, distribute, use, store and revoke digital certificates and manage public-key encryption.

Appendix C

Purchaser –Electric Boat or Huntington Ingalls Industries – Newport News Shipbuilding

Quality Management System – A quality management system (QMS) is defined as a formalized system that documents processes, procedures, and responsibilities for achieving quality policies and objectives required in the procurement document.

Quantitative Chemical Analysis - The detection and identification of constituents in a given sample and the accurate determination of their absolute concentrations using rigorous analytical techniques with required calibration and quality control.

Segregated Material - Material collected together and separated from other material.

Semi-Quantitative Chemical Analysis - A normally non-destructive method, such as optical emission or X-ray spectrometry, which confirms the approximant concentration of the alloy characterizing elements, and provides assurance, within the capabilities of the analytical instrument, that the alloy is the correct material type in accordance with the applicable contract requirements. Semi-quantitative chemical analysis does not determine the exact concentration of constituent elements present.

Small Items - Items that have a marking surface area less than 3/8 of an inch square.

Sub-Tier Supplier, Vendor or Contractor - Any organization or individual that furnishes material or services in accordance with an issued purchase order to the supplier.

Supplemental Technical Requirements (STRs): In the context of this document, STRs refer to NAVSEA Letter Ser 08S/16-04537, dated November 16, 2026, which provides guidance when ISO 9001:2015 QMSs are applied to critical or complex components.

Supplier, Seller or Vendor - Any organization that furnishes material or service in accordance with an issued purchase order.

Supplier Corrective Action Report (SCAR) - Nonconformance considered by the purchaser to be significant or systemic are processed on a Supplier Corrective Action Request (SCAR) or HII-NNS equivalent. SCARs are written to obtain root cause(s), corrective action(s) and preventive action(s) from the supplier.

Traceability - A positive means of identifying material to its OQE.

Trace Code - A trace code is a unique number identified by the supplier to represent the original heat and/or lot number. The trace code can be utilized when material receives addition process (i.e., heat treatment, hot forged, extrusion, etc.) and alters the mechanical properties. If the supplier uses a trace code, the process for establishing a unique trace code shall be identified in the supplier's Quality Manual. The trace code shall remain unique to one set of test reports (OQE) including addition processes. The original OQE shall be overstamped as necessary.

Vendor Information Request (VIR) - Requests for interpretation or clarification of any purchase order requirements, changes to drawings or specifications, and/or requests for acceptance of a non-conforming conditions and repair welding authorizations (when required)

Vendor Procedure Approval Request (VPAR) - All NDT (LP, MP, UT, VT, RT), Alloy Identity, Welding and Brazing (production and repair) and special processes must be performed in accordance with approved written procedures. These procedures must be submitted to the purchaser for approval on a VPAR prior to their use.

APPENDIX D: SUPPLEMENTAL REQUIREMENTS FOR FORGING OPERATIONS AND ADDITIVE MANUFACTURING

D 1.0 Forging Supplier Specific Requirements

D 1.1 General Forging Procurement Control Requirements

a) **Procurement Control**

1) When providing forgings or forgings in an assembly, suppliers shall utilize only the forging suppliers listed on the Purchaser's Approved Forging Supplier List, available from the Purchaser.

2) Use of a forging supplier other than one currently approved by the Purchaser requires a VIR be submitted for approval containing the following information:

a. Technical evaluation and certifications for forging operations. The may include the forging part First Article testing.

b. Quality Assurance Assessment and Evaluation of the following areas:

i. Contract Review (Purchase order review)
ii. Material Control
iii. Calibration of Instrumentation, Tools, and Measurement Equipment
iv. Destructive and Nondestructive Testing
v. Control of Objective Quality Evidence

D 1.2 Forging Process Requirements

a) Forging samples must be tested as required in the purchase order, applicable material specification, modification for the material specification, and/or approved forging drawing. Test samples shall be physically identified with the forging traceability number and retained by the supplier as Official Records.

D 1.3 Forging Certification Package Requirements

a) The material test report for the original heat number shall be annotated to reflect the assigned heat/lot number or unique traceability identity number.

b) Chemical and mechanical test report submittal to the purchaser shall be in accordance with the requirements contained elsewhere in the purchase order.

D 1.4 Suppliers are required to perform on-site audits of their sub-tier forging suppliers unless they are on the Purchaser's Approved Forging Supplier List (Available upon request from the Purchaser).

D 1.5 Record and Material Retention Requirements

a) The forging supplier shall maintain the mechanical test specimens, and their respective test results, as Official Records, subject to audit and further analysis by the Purchaser.

Appendix D

D 2.0 Additive Manufacturing (AM) Specific Requirements

D 2.1 General AM Procurement Control Requirements

a) Procurement Control

1) When providing AM parts in an assembly, suppliers shall utilize only the AM suppliers listed on the Purchaser's Approved AM Supplier List, available from the Purchaser.

2) Use of an AM supplier other than one currently approved by the Purchaser requires a VIR be submitted for approval containing the following information:

a. Technical evaluation and certifications for AM operations. The may include the AM part First Article testing.

b. Quality Assurance Assessment and Evaluation of the following areas:

i. Contract Review (purchase orderreview)
ii. Material Control
iii. Calibration of Instrumentation, Tools, and Measurement Equipment
iv. Destructive and Nondestructive Testing
v. Control of Objective Quality Evidence
vi. Special Process (i.e., Heat Treatment and Welding, cleanliness controls, etc.) as required

D 2.2 AM Process Requirements

a) AM parts shall be physically identified with a heat/lot number or unique traceability identification. AM parts that receive Heat Treatment outside their heat/lot numbers must be uniquely identified and traceable to their original heat/lot number.

b) AM samples must be tested as required in the purchase order, applicable material specification, modification for the material specification, and/or approved forging drawing. Test samples shall be physically identified with the AM traceability number and retained by the supplier as Official Records.

D 2.3 AM Certification Package Requirements

a) The material test report for the original base material (i.e., powder, wire) shall be annotated to reflect the assigned heat/lot number or unique traceability identity number of the AM parts.

b) Chemical and mechanical test report submittal to the purchaser shall be in accordance with the requirements contained elsewhere in the purchase order.

APPENDIX E: GENERAL LETTER OF ADVISEMENT (LOA) GUIDELINES

E 1.0 LOA REQUIREMENT:

The LOA shall be on a dated and signed (or e-signed) company letterhead and contain, at a minimum, the following:

- Problem Statement - A description of the deficient condition(s) including the contract requirement which was violated
- Part number(s) impacted
- All Purchaser PO's and line items affected. If a full list of PO's and line items cannot be provided, do not delay submittal of the LOA; however bounding of impacted material must be provided. The supplier may provide alternative bounding (i.e. date ranges or conditions) that can be used in conjunction with the non-conformance description to identify impacted material. The purchaser will determine whether a broad statement of impact is acceptable or a detailed parts list is required.

E 2.0 FOR MATERIALS PROCURED BY Electric Boat:

a) Foreign suppliers are required to transmit LOAs by contacting their Buyer.

b) Domestic suppliers are required to submit LOAs through the Electric Boat iSupplier portal found at the URL provided upon registration. Use the template located at the end of this section and instructions for guidance.

c) For assistance with submitting LOAs, please refer to 'OQE Submission in Oracle iSupplier Job Aid' found on the Electric Boat Supplier Website or contact your Buyer.

d) Upon submittal of an LOA, the supplier is required to submit an email to ebsqreports@gdeb.com, requesting acknowledgement receipt of the submittal.

e) When submitting LOAs, the supplier should upload/provide the delivered material list in Microsoft Excel format in addition to listing them on the signed LOA.

E 3.0 FOR MATERIALS PROCURED BY HII-NNS:

E 3.1 HII-NNS LOAs should also contain the following information if readily available and obtaining such information shall not delay the initial submittal of the LOA:

a) Root cause (please note if root cause is preliminary)
b) Corrective and/or or preventative action (include any actions with ECDs required to bound issue)
c) The logic or manner by which the problem was bounded, or actions being taken to bound the problem.
d) Recommendation (please note if recommendation is based on preliminary data and provide ECD for final recommendation)

E 3.2 HII-NNS LOA Submission requirements:

a) Foreign suppliers are instructed transmit LOAs by contacting their NNS Buyer.

Appendix E

b) For Domestic suppliers, the LOA shall be sent by letter, email, or VTDX (FOUO and NOFORN), at a minimum, to the Purchaser's Agent (Buyer) and the following:

Manager of Supplier Quality Procurement
Department 005
Building 872-2
4101 Washington Avenue
Newport News, VA 23607

and

Director of Supply Chain
Department 051
4101 Washington Avenue
Newport News, VA 23607

c) It is requested that suppliers attempt to send a digital copy via VTDX, or email (if not FOUO or NOFORN) before using the US Postal Service. It is advisable to send a digital copy of the LOA to the Purchaser's Supplier Quality cognizant engineer, also to ensure receipt

d) When submitting LOAs, the supplier should upload/provide the delivered material list in Microsoft Excel format in addition to listing them on the signed LOA.

Appendix E

Letter of Advisement (LOA) Template Format on Company Letter Head

To: *See Note 1
Electric Boat Corporation (or Huntington Ingalls -Newport News Shipbuilding)
To: Director of Supplier Quality
Electric Boat Corporation (or Huntington Ingalls -Newport News Shipbuilding)

Subject: Letter of Advisement for Non-conformance – Note 2

To whom it may concern,

ISSUE(S)

We have identified that the following issue(s) impact material previously delivered to Electric Boat:

Describe issue #1

Describe issue #2 (if applicable), etc.

UNCONTROLLED UNCLASSIFIED INFORMATION

The following PO Line Item(s) are impacted by the noted deficiency(ies) and have been delivered to the Purchaser:

Table 1: Material Delivered to Purchaser				
PO	Line Item	Purchaser's Part Number	Serial Number or MIC Number	Description

*See Note 3

This (These) issue(s) also impact(s) material not delivered to the Purchaser and Vendor Information Request(s) has (have) has been submitted for disposition:

Table 2: Material Not Delivered to Purchaser					
VIR Number	PO	Line Item	Purchaser's Part Number	Serial Number or MIC Number	Description

*See Note 4

This issue also impacts (or does not impact) material delivered to Electric Boat/HII-NNS, or the Navy submarine procurement activities. These customers have been notified. *See Note 5

TECHNICAL EVALUATION

Provide the technical evaluation.

RECOMMENDATION AND JUSTIFICATION

We recommend that the Purchaser (provide recommendation with justification). *See Note 7

Sincerely,

Signature , Date
Printed Name, Title

Appendix E

Letter of Advisement (LOA) Template Notes:

1 Address to Director of Subcontracts or Director of General Procurement based on direction from the cognizant Purchaser's Buyer.

2 General Description of issue or issue(s). Examples are "incorrect material property test", "not manufactured in accordance with requirement", and etc.

3 If full list is not known at time of submittal, please provide an ECD when it will be available. Table information can be submitted as an attachment to LOA.

4 VIR Statement may be removed if not applicable. If information is not known at time of submittal, provide an ECD when it will be available. For example: "This (These) issue(s) also impact(s) material not delivered to Purchaser and Vendor Information Request(s) will be submitted to the Purchaser by mm/dd/yyyy"

5 Statement should be made if positive or negative. If not known at time of submittal then state as such and provide an ECD when it will be available. Examples of Navy submarine procurement activities are NAVICP, DLA, and BPMI.

6 Examples of recommendation:

"Recommend accept as is"

"Recommend replace material within X years due to service life concerns."

"Recommend immediate replacement of material."

"Evaluation is incomplete, recommendation will be submitted to the Purchaser by mm/dd/yyyy"