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DEFENSE**

## **PURCHASE ORDER CONTINUATION SHEET**

### **I. General Requirements**

#### **Packaging**

Packaging for shipment shall be best commercial practice and will conform to the applicable transportation regulations. Additional requirements may be required by the specific material specifications with which you are complying. All finished machined parts shall be individually packaged in a manner which will protect all surfaces during shipment.

#### **Procedure Approval**

You are required to notify your applicable buyer and obtain approval of any change in your process, procedures (all NDT, welding as well as specific/unique process, etc.) Procedures must be approved prior to performing work. Hunt Valve notice and approval is required in all instances prior to shipment. **Failure to notify the buyer of changes/deviations may be a violation of Federal Law.**

All NDT, alloy identity, welding and brazing used on Hunt Valve orders shall be to procedures submitted to and approved by Hunt Valve and/or its customer(s). The vendor shall not use these procedures on Hunt Valve contract items until the approval is received.

NDT procedures shall be written in accordance with EB Standard Clause 60-67. All clauses can be found on the following website: <http://www.gdeb.com/suppliers/stdcls/>

Magnetic Particle Testing certification shall be in accordance with EB Standard Clause 76-22A.

Liquid Penetrant Testing certification shall be in accordance with EB Standard Clause 76-22B.

Weld procedures shall be written in accordance with EB Standard Clause 60-77.

#### **Deviations/Exceptions**

You are required to notify your applicable buyer and obtain approval of any change in your design or any deviation from the purchase order requirements including standard clauses, drawings and invoked specifications. Hunt Valve notice and approval is required in all instances prior to shipment. Failure to notify the buyer of changes/deviations/exceptions may be a violation of Federal Law.

The acceptance of nonconforming materials by the purchaser for a specific order or prior orders does not relieve the suppliers of their obligation to furnish all remaining items or material on the order, in strict conformance to all requirements. Any acceptance of a nonconformance will not serve as a waiver of requirements or establish precedence for performance, regarding subsequent deliveries under current or future orders.

Note: The purchase order shall take precedence over invoked drawings and specification requirements. Deviations or requests for clarification may be submitted on Form Q4.4.4A. In any case approval must be granted in writing. Form Q4.4.4A may be obtained through Hunt Valve Company or accessed through our company website.

### **Fraud and Falsification**

This purchase order is a lower-tier subcontract under a government prime contract or subcontract. As such, activities there under are within the jurisdiction of the United States Government. Any knowing and willful act to falsify, conceal, or alter a material fact, or any false, fraudulent or fictitious statement or representation in connection with the performance of work under this purchase order may be punishable in accordance with applicable Federal statutes.

Federal Law (18 USC 1001) provides, in part as follows:

“Except as otherwise provided in this section, whoever, in any matter within the jurisdiction of the executive, legislative or judicial branch of the Government of the United States, knowingly and willfully-

- (1) Falsifies, conceals or covers up by any trick, scheme, or device, a material fact;
- (2) Makes any materially false, fictitious or fraudulent statements or representations; or
- (3) Makes or uses any false writing or document knowing the same to contain any materially false, fictitious or fraudulent statement or entry, shall be fined under this title or imprisoned not more than 5 years, or if the offense involves international or domestic terrorism (as defined in section 2331), imprisoned not more than 8 years or both...”

All employees or other persons engaged in or who will be engaged in the performance of work under this Purchase Order, shall be, if they have not been previously, informed in writing of the above language and that there is a risk of Federal criminal penalties associated with any knowingly and willful falsification, concealment, or misrepresentation in connection with work performed under Government subcontractors such as this Purchase Order.

For more information regarding Malpractice Prevention follow the website link below:

[www.gdeb.com/suppliers](http://www.gdeb.com/suppliers)

Link to Electric Boat Supplier Quality Awareness Video

Link to Electric Boat Specification 2678 (Appendix B)

### **Contractor Code of Business Ethics & Conduct – FAR Clause 52.203.23**

This is a requirement when the value of the contract exceeds \$6 million and the period of performance is 120 days or more.

Subcontractors must conduct themselves with the highest degree of integrity and honesty. Subcontractors are required to have a written Code of Business Ethics and Conduct. The subcontract must provide a copy of the code to each employee engaged in the performance of the contract, have employee ethics and compliance training program and have an internal control system. This awareness program should periodically communicate standards, procedures and other aspects of business ethics.

### **Certifications**

Some form of certification (the level of which shall be specified by standard clauses) is required for all shipments. These certifications are essential to acceptance of the material. All certifications will require the signature, typed name and the title of the person responsible for the information provided on the certification.

### **Corrections to Official Records-Reference Electric Boat Specification 2678**

The supplier shall maintain legible Official Records necessary to demonstrate and verify achievement of the quality requirements specified in the purchase order. The supplier must establish a process to correct Official Records.

When making corrections on official records the following method shall be used:

- a. Draw a single line through the incorrect entry. Erasure or obliterations, including “whiteout” of information is prohibited. Enter the corrected information in a legible fashion. Initial and date each correction. If person making correction is different from original signer, initials or signature along with typed or printed name and title must be provided.
- b. When a certification is revised to make corrections or add information, in portion or completely, the certification shall be identified as a corrected copy, and all changes shall be identified using an asterisk \* with an explanation of the correction/addition stated on the certification. The original date of issuance must remain along with date of correction. If person making correction is different from original signer, initials or signature along with typed or printed name and title must be 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. Example: J.W. Brown (signature) for D.W. Smith (printed).
- d. Certifications and permanent test and inspection records shall be complete signed and dated. Data shall not be annotated by ditto marks and continuation arrows for repeated data, initials, or signatures is prohibited. When appropriate the use of N/A or none should be used.

**NOTE: CORRECTIONS/ADDITIONS CANNOT BE MADE TO ANOTHER SUPPLIER’S OFFICIAL RECORD WITHOUT WRITTEN AUTHORIZATION FROM THE PURCHASER.**

### **Electronic Signatures on Certifications (ref. EB 2678)**

Definitions:

- 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.
- Public Key Infrastructure (KPI) – 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.

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 Government through audit, surveillance, or inspection.

### **DPAS - Defense Priorities and Allocation System (for contracts in support of a U.S. Government prime contract or subcontract)**

This order may have a DoD Priority Rating and be noted as such on the purchase order. If this order is a rated order, certified for national defense use, you are required to follow the provisions of the Defense Priorities and Allocation System (15 CFR Part 700). This means any order for product, service or material will require preferential treatment. The DPAS provides that DoD contracts are assigned priority ratings to assure that these contracts are afforded production priorities for delivery ahead of unrated orders including commercial orders.

The vendor is obligated to accept the rated order to schedule production operations to satisfy delivery requirements of each rated order and to extend the priority rating to sub-vendors to assure that the item is delivered in the timeframe requested.

**Security Awareness and Export Control of Technical Data (for contracts in support of a U.S. Government prime contract or subcontract)**

Documentation associated with our product (including but not limited to drawings, sketches, specifications etc.) discussions, telecons or any other transfer of information whether verbal or written are considered to be technical data. This order is subject to ITAR (International Traffic in Arms Regulations). ITAR is the control of Defense Related Articles which restricts the release of technical data to only US Citizens in or out of USA and Technical data as outlined in Title 22 Code of Federal Regulations Subchapter M. See part 120 ET AL.

For more information regarding ITAR follow the website link below:

[www.pmddtc.state.gov](http://www.pmddtc.state.gov) – U.S. Department of State – Directorate of Defense Trade Controls (DDTC)

**Transmission abroad of Naval Nuclear Propulsion Information**

This provision applies only if, during the performance of this order, seller will have access to Naval Nuclear Propulsion Information (NNPI) as defined in OPNAVINST N9210.3

Reference [\\*App A-DoD\\_Contracts\\_NNS\\_Supplement-20240731](#)

**Material Storage**

Level 1 materials of different types (alloys), grades or conditions shall be segregated through physical separation unless readily differentiated by attributes such as size, physical identification, or physical appearance. The method of segregation shall assure that similar appearing material of different alloys and/or material conditions are not mixed. Material requiring traceability (Level 1) shall be segregated from non-traceable material. Nonconforming material shall be identified and segregated from acceptable material. Level 1 non-conforming material must be marked as “Level 1” and be segregated from non-Level 1 nonconforming material.

**Purchase Order Review**

The Supplier’s quality representative shall review Level 1 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 1 material shall contain readily recognizable Level 1 identification.

**Receiving Inspection**

The Supplier shall inspect Level 1 material at time of receipt from their sub-tier Suppliers, Processors or Inspection Organizations to assure conformance to purchase order requirements and shall document results.



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### **Test Records/Certifications provided to Purchaser, OVERSTAMPING**

When the purchaser's purchase order requirement is to supply Level 1 material, the supplier shall provide total and complete traceability for all Level 1 material supplied. This traceability requires certified material test reports from the producer of the raw material (mill) which contains quantitative mechanical and chemical data.

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.

**ADDITIONALLY**, the original mill certification shall be over stamped and/or annotated to contain the following information:

Traceability Number/Code\_\_\_\_\_ is fabricated from raw material Heat No./Heat-Treat No.\_\_\_\_\_. Date, Name and Signature of Authorized Company Representative.

Note: When applying the over stamp or annotation to the certification report NO pertinent data shall be obliterated or rendered illegible. Certifications, or Test Reports for Level 1 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 over stamping.

### **COUNTERFEIT PARTS/COUNTERFEIT WORK PROHIBITION**

Additional Requirements to DFARS 252.246-7007, Counterfeit Electronic Part Detection and Avoidance System (May 2014)

- a. For purposes of this clause, work consists of those parts delivered under this Contract that are the lowest level of separately identifiable items (e.g., articles, components, goods and assemblies).
- b. SELLER agrees and shall ensure that Counterfeit Electronic Parts and/or Suspect Counterfeit Electronic Parts (defined in DFARS 252.246-7007) are strictly prohibited and will not be tendered for acceptance, shipped in place, delivered to, or be incorporated not deliverables to Electric Boat or its designee under this Purchase Order. COUNTERFEIT ELECTRONIC PARTS AND SUSPECT COUNTERFEIT ELECTRONIC PARTS ARE NONCONFORMING TO PURCHASE ORDER REQUIREMENTS AND ARE UNACCEPTABLE REGARDLESS OF THEIR OTHERWISE ACCEPTABLE CONDITION, QUALITY, PERFORMANCE, FUNCTIONALITY, AND/OR SUITABILITY FOR PURPOSE. The term Suspect Counterfeit Electronic Parts also includes electronic parts that the U.S. Government designates as suspect including, without limitation, electronic parts listed in Governmental alerts such as those under the Government Industry Data Exchange Program (GIDEP).
- c. SELLER shall only purchase products to be delivered or to be incorporated into deliverables to BUYER directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM), or through an OCM/OEM authorized chain. Work shall not be acquired from independent distributors or brokers unless approved in advance in writing by BUYER.
- d. SELLER shall maintain and make available to BUYER and/or the Government documentation that authenticates traceability of the affected electronic parts throughout the supply chain to the applicable OEM/OCM, which SELLER shall provide to BUYER upon request. Documentation shall be maintained for a minimum of ten years after the later of final delivery of all items on the purchase or final payment of all items on the purchase order.
- e. SELLER shall notify BUYER in writing immediately, but in no event later than 10 days, if SELLER becomes



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- aware or suspects that it has delivered Counterfeit Electronic Parts or Suspect Counterfeit Electronic Parts.
- f. BUYER reserves the right to quarantine/impound any and all Counterfeit Electronic Parts or Suspect Counterfeit Electronic Parts it receives, and to notify the BUYER's Customer, GIDEP, and other relevant Government agencies. BUYER has the right to turn over the impounded Counterfeit Electronic Parts and Suspect Counterfeit Electronic Parts to the appropriate authorities and to withhold payment for the parts pending the results of the investigation. Impounded electronic parts may not be returned to the SELLER or SELLER's source.
  - g. In the event that Work delivered under this Contract constitutes or includes Counterfeit Electronic Parts and/or Suspect Counterfeit Electronic Parts, SELLER shall, at its sole expense, promptly replace such Counterfeit Electronic Parts and Suspect Counterfeit Electronic Parts with genuine Electronic Parts conforming to the requirements of this Purchase Order.
  - h. Notwithstanding any other provision in this Purchase Order, SELLER shall be liable for all costs relating to the tendering or delivery of the Counterfeit Electronic Parts and Suspect Counterfeit Electronic Parts including, without limitation, those associated with the removal, inspection, testing, investigation, retention, impoundment, and replacement of Counterfeit Electronic Parts and Suspect Counterfeit Electronic Parts, as well as any testing necessitated by the reinstallation of Work after Counterfeit/Suspect Counterfeit Electronic Parts have been exchanged.
  - i. Also, notwithstanding any other provision in this Purchase Order, the BUYER shall be under no obligation to pay for any such items determined to be counterfeit or unacceptable. All such costs shall be deemed to be direct costs and direct damages. The remedies contained in this clause are in addition to any other remedies BUYER may have at law, equity or under other provisions of this Purchase Order.
  - j. This clause shall survive the completion, expiration or termination of this order.
  - k. **Flow down requirement** – SELLER shall include paragraphs (a) through (i) and this paragraph (k) of this clause or equivalent provisions in all lower tier subcontracts for delivery of items that are electronic parts as well as those which require the delivery of components or subcomponents containing electronic parts that will be included in deliverables or otherwise furnished to BUYER or its designee in performance of this order.

**DFARS 252-246-7007 Counterfeit Electronic Part Detection and Avoidance System (May 2014) modified as follows:**

(Applies to this purchase order and to all lower-tier awards under this purchase order at any level and of any value).

- a. In paragraph (c)(2), 3<sup>rd</sup> sentence, change “Government” to “BUYER and the Government” and in the last sentence change “Contractor” to “BUYER” and the SELLER”, and
- b. In paragraph (c)(6), 2<sup>nd</sup> sentence, change “Contracting Officer” to “BUYER, the BUYER’s Contracting Officer via BUYER,” and changed “purchased by a Contractor” to “purchased by the BUYER or a subcontractor (e.g., SELLER, lower-tier subcontractor, etc.)”, and
- c. In paragraph (c)(8), 2<sup>nd</sup> sentence, change “Contractor” to “SELLER”, and
- d. In paragraph (e), change the sent to read, “Flow Down. The SELLER shall include the substance of this clause, including paragraphs (a) through (e), in lower-tier subcontracts, including lower-tier subcontracts for commercial items, for electronic parts or assemblies containing electronic parts”.



**Public Release of Information (ref. EB 2678)**

- a. Information, technical data, photographs, sketches, advertisements, displays or other materials related to work under this purchase order, in which seller would like to publish, display, or release internally to employees who do not have a need-to-know, to other contractors, to Government agencies, or to the general public, requires prior authorization from Hunt Valve and/or its customer. A request for public release shall be transmitted to the Buyer at least eight weeks prior to the anticipated printing or release date. The identity of the specific method of release, as well as other pertinent details of the proposed release shall be included in the request.
- b. Reference to Electric Boat Corporation, its parent, General Dynamics Corporation, or any of their officers, agents, and employees, in any public release is prohibited without prior written consent from BUYER. This includes, without limitation, reference to supplying any particular item or service to BUYER.
- c. Information and technical data described above may not be transmitted over the internet (except in certain cases when suitably encrypted and prior written approvals have been obtained). The Seller shall include the substance of this Clause, including this sentence, in all of its subcontracts.
- d. Should any information described above be requested, subpoenaed, or otherwise sought by a court of competent jurisdiction or other judicial or administrative authority, Seller shall provide sufficient notice to Buyer to enable Buyer a reasonable opportunity to obtain a protective order to govern such disclosure, and if requested by Buyer, Seller shall reasonably cooperate with Buyer to obtain such a protective order. Seller's obligations under this article shall survive this purchase order and continue in effect for period of twenty years after issuance of this purchase order.
- e. Flow-down Requirement. Seller shall include all provisions of this article in all lower-tier subcontracts issued under this Purchase Order.

**Approvals/Permits/Licenses**

- a. Seller agrees that it shall obtain and maintain in good standing and shall require its lower-tier subcontractors to obtain and to maintain in good standing, all necessary and applicable approvals, permits licenses (including export and/or import licenses) required for performance of the work under this purchase order and pay all fees and other charges required. They shall be obtained and maintained for as long as necessary for the satisfactory completion of the Seller's responsibilities under this purchase order.
- b. The cost of such permits licenses, and compliance is deemed to be included in the cost or price stated in this purchase order. This includes, but is not limited to, those costs in connection with import and export control as well as those costs in connection with any movement over the public highways of overweight/over-dimensional loads and hazardous materials.
- c. Seller shall immediately notify Buyer in writing if any permits, licenses, and/or approvals that Seller is required to obtain in performance of this order are denied, withheld, suspended, revoked, or expired prior to completion of all work required by this order and terms.
- d. Flow down Requirement - Seller shall ensure that the substance of this clause is included in all lower-tier subcontracts at any tier.

### **Access to Proprietary Data or Computer Software**

- a. The seller agrees:
  - i. To utilize the proprietary information only in connection with the performance of this contract.
  - ii. To use at least the same degree of care in safeguarding the buyer's proprietary information as it uses to safeguard its own similar, proprietary information that it does not which to disclose, provided such degree of care is reasonably calculated to prevent inadvertent disclosure an unauthorized use thereof.
  - iii. Indoctrinate its personnel who will have access to the data or software as to the restrictions under which access is granted.
  - iv. Not disclose the data or software to a third party, including but not limited to, any joint ventures, affiliate, successor, assign of the seller or other seller personnel, except as authorized by the buyer
  - v. Not to use any portion of this proprietary information for personal gain or to advance of support seller's or others' business other than for this purchase order reproduce the restrictive stamp, marking, or legend on each use of the data or software whether in whole or in part; and
  - vi. To notify buyer immediately upon discovery of any inadvertent disclosure or unauthorized use of proprietary information and to promptly use reasonable efforts to prevent any further inadvertent disclosure or unauthorized use.
- b. The restrictions on use and disclosure of the data and software described above also apply to such information received from the buyer through any means to which the seller has access in the performance of this purchase order that contains proprietary or other restrictive markings.
- c. The seller agrees that it will promptly notify the buyer of any attempt by an individual, company or buyer representative not directly involved in the effort to be performed under this purchase order to gain access to such proprietary information. Such notification shall include the name and organization of the individual, company or buyer representative seeking access to such information.
- d. The seller shall include this requirement in subcontracts of any tier which involve access to information covered by paragraph (a).

### **Citizenship Requirements**

- a. Seller represents that it is either:
  - i. A U.S. Person as that term is defined in the U.S. Export Laws and Regulations (ITAR 22 CFR 120.15 or the EAR at Title 15, Part 772), or that
  - ii. It has disclosed to buyer in writing the country in which it is incorporated or otherwise organized to do business, or if a natural person, all citizenships, and U.S. immigration status.
- b. Seller further represents that it has disclosed to buyer in writing, all pertinent details relating to foreign ownership, control or influence as defined in 22 CFR 120.37 and DFARS 252.209-7002 (June 2010).
- c. **Non-U.S. Personnel.** Seller shall not give any individual or entity who is not a – "U.S. Person" (as defined in ITAR 22 CFR 120.15 or the EAR at Title 15, Part 772) access to export-controlled commodities, technical data, technology, software, or any other export-controlled items or provided an unauthorized Defense Service, without the prior written consent of buyer and obtaining all required licenses and approvals. Any request for such consent must state the intended recipient's citizenship(s), and status under 8 U.S.C. 1101 and 8 U.S.C. 1324 (the "Immigration and Naturalization Act"), and such other information as buyer may reasonably request. Consent granted by buyer in response to seller's request hereunder shall not relieve seller of its obligations to comply with the provisions of U.S. Export Laws and Regulations, constitute a waiver of the requirements of U.S. Export Laws and Regulations, or constitute consent for seller to violate any provision of the U.S. Export Laws and Regulations. Disclosure of Navy Nuclear Propulsion Information has additional restrictions.



- d. Flow-down Requirement. Seller shall impose the same restriction on its lower-tier subcontractors under this order (when lower-tier subcontractors are eligible and/or approved by Hunt Valve, its customer and the U.S. Government to receive U.S. technical data).

### **Export Control Marking**

- a. Seller shall place the following statement on documents containing defense technical data that is controlled by the Arms Export Control Act:
- i. “WARNING – This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S. C. Sec 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50, U.S.C., App 2401, et seq. Violations of these export laws can result in severe criminal penalties. Disseminate in accordance with provisions of OPNAVINST 5510-0161”.
- b. Flow-down Requirement. Seller agrees to insert a contract provision substantially the same as this paragraph including this sentence in all subcontracts issued under this Purchase Order.

### **DFARS 252.225-7048, EXPORT CONTROLLED ITEMS** (JUNE 2013) (Modified to read as shown below)

- a. Definition. “Export-controlled items,” as used in this clause, means items subject to the Export Administration Regulations (EAR) (15 CFR Parts 730-774) or the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130). The term includes:
  - i. “Defense items,” defined in the Arms Export Control Act, 22 U.S.C. 2778(j)(4)(A), as defense articles, defense services, and related technical data, and further defined in the ITAR, 22 CFR Part 120.
  - ii. “Items,” defined in the EAR as “commodities,” “software,” and “technology,” terms that are also defined in the EAR, 15 CFR 772.1
- b. The Contractor shall comply with all applicable laws and regulations regarding export-controlled items, including, but not limited to, the requirement for contractors to register with the Department of State in accordance with the ITAR. The Contractor shall consult with the Department of State regarding any
- c. questions relating to compliance with the ITAR and shall consult with the Department of Commerce regarding any questions relating to compliance with the EAR.
- d. The contractor’s responsibility to comply with all applicable laws and regulations regarding export-controlled items exists independent of, and is not established or limited by, the information provided by this clause.
- e. Nothing in the terms of this contract adds, changes, supersedes, or waives any of the requirements of applicable Federal laws, Executive orders, and regulations, including but not limited to---
  - i. The Export Administration Act of 1979, as amended (50 U.S.C. App. 2401, et seq.);
  - ii. The Arms Export Control Act (22 U.S.C. 2751, et seq.);
  - iii. The International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.);
  - iv. The Export Administration Regulations (15 CFR Parts 730-774);
  - v. The International Traffic in Arms Regulations (22 CFR Parts 120-130); and
  - vi. Executive Order 13222, as extended.
- f. Flow-down Requirement – The contractor shall include the substance of this clause, including this paragraph (e), in all subcontracts.



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**Conflict Minerals Certification**

- a. Seller agrees to provide buyer with a current, accurate and complete certification as to seller's procurement practices with respect to conflict Minerals, as defined in Securities and Exchange Commission's final rule on Conflict Minerals, 17 CFR Parts 240 and 249(b), promulgated pursuant to Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protections Act (the "Rule")
- b. Seller agrees that it shall notify buyer of any changes to seller's Conflict Minerals Certification that is on file with the buyer.
- c. Seller agrees that it has made, and will continue to make, good faith inquiries reasonably designed to determine whether any Conflict Mineral that is included in any product delivered to buyer pursuant to this purchase order originated in the DRC or an Adjoining Country, or is from Recycled or Scrap Sources, as defined in the Rule. Seller further agrees that, if required, it has performed, and will continue to perform, due diligence on the source and chain of custody of any Conflict Mineral that is included in any product delivered to Hunt pursuant to this purchase order, and that such due diligence conforms to a nationally or internationally recognized due diligence framework, if such framework is available for the Conflict Mineral. Seller agrees that all inquiries and diligence performed shall be consistent with the requirements of the Rule.
- d. Seller agrees that it shall require its own subcontractors and suppliers (at any tier in the supply chain for a product delivered to buyer under this purchase order) to furnish information to seller necessary to support seller's obligations under this clause.
- e. Seller will maintain records reviewable by buyer to support its certifications above.
- f. Seller acknowledges that buyer may utilize and disclose Conflict Minerals information provided by seller in purchase order to satisfy its disclosure obligations under the Rule.
- g. If buyer determines that any certification made by seller under this clause is inaccurate or incomplete in any respect, then buyer may terminate this purchase order pursuant to the "Default" provision of this purchase order.

### **Level 1 Source Suppliers**

#### **If you are a Level 1 material supplier to Hunt Valve the following is applicable:**

- a. The Seller shall perform **on-site** audits of supplier sources of Level 1 material unless one of the following applies:
  - a. The supplier source is buyer-approved Level 1 source supplier EB or HII-NNS
  - b. The starting material is sample tested (one sample per heat/lot) after receipt for both chemistry and mechanical properties by a test lab, other than the supplier source or mill, and compared to the applicable specification for acceptance
  - c. The process requires the finished product to be subsequently tested for chemistry and mechanical properties, by a test lab other than the supplier source or mill and compared to the applicable specification for acceptance.
  - d. Material or product in inventory purchased prior to 3/29/10 is sample tested (one sample per heat/lot) for chemistry by a test lab other than the supplier source or mill and compared to the applicable specification for acceptance.
- b. Test reports showing the quantitative results of tests noted in b, c, and d above as applicable are required to be submitted with the certifications to Hunt Valve.

### **Prohibited Hazardous Materials**

The following are prohibited Hazardous Materials that are not to be used unless agreed to in writing between the seller and buyer, or as specified in the order. (i.e. an industry specification or assembly drawing that specifies the specific hazardous material), the hazardous material constituents in prohibited Hazardous Materials shall be included in or come in direct contact with any products furnished under this order.

Asbestos	Lead & Lead Compounds	Beryllium & Beryllium Compounds
Barium & Barium Compounds, including Barium Sulfate	Mercury & Mercury Compounds	Methylene Chloride
Brass & Bronze w/ >% Lead	Ozone Depleting Substances (ODS) Class 1	Arsenic & Arsenic Compounds
Boro Trifluoride	Polychlorinated Biphenyls (PCBs)	Benzene in Coatings
Cadmium & Cadmium Compounds	Selenium & Selenium Compounds	Organometallic Compounds in Coatings
Chromium & Chromium Compounds	Silver & Silver Compounds	

## **II. Part Specific Information**

### **O-Rings & Other Synthetic Rubber Products**

Certifications are required when O-rings, or other synthetic rubber products, are being supplied as a part of the purchase order.

- A certification which includes a cure date, specification, revision, class and grade.
- SHELF LIFE
  - All O-rings and molded seals must be purchased with a minimum of 1/2 its shelf life still active, or as specified in the purchase order upon receipt.
  - Shelf life of these items will be as defined in SAE ARP5316, MIL-HDBK-695, or MIL-STD-1523A.
- Packaging and labeling shall be in accordance with SAE ARP5316, or as agreed upon with the buyer.
- Products will be manufactured from a source that is listed on the Qualified Products List for material/specification for which they are supplying.

### **Weld Filler Metal (for contracts in support of a U.S. Government prime contract or subcontract)**

All Mil- Spec weld filler material (rod, electrode, wire, powder, etc.) used on military orders must be from a vendor that is listed on the Qualified Products List for material/specification for which they are supplying.

### **Seamless Pipe & Tubing Only**

Unless specifically authorized in the Purchase Order, only seamless pipe and tubing shall be used in the items or components supplied to Hunt Valve. The vendor's material control must maintain segregation of seamed pipe and tubing from seamless pipe and tubing so that they cannot become mixed. **This requirement must be passed down to the vendor's mill or sub-tier suppliers.**

Tube and pipe shall be marked per MIL-STD-792 and shall not be marked with die stamps or vibro etched.

### **Fasteners**

Centers are not permitted in machined fasteners. Vendor must notify Hunt Valve Company prior to purchase if internal fastener threads are manufactured by any other method than cutting. Cold forming of internal threads is not allowed.

**WEDGE TESTING** performed in accordance with ASTM F606 shall utilize wedge test samples specified by section 3.5.1 of ASTM F606/F606M-16.

Section 3.5.1 specifically reads: "When both wedge tension and proof load testing are required by the product specification the bolts that have been proof load tested in accordance with method 1 (3.2.3) or method 3 (3.2.5) may be used for wedge testing. Fasteners that have been yield strength tested utilizing either method 2 (3.2.4) or method 2A (3.2.4.1) shall not be reused for wedge testing."

## **Markings**

All markings are to be performed in accordance with MIL-STD-792, para 4.1, Type I-IX unless otherwise specified on the purchase order.

The use of Electric Arc Marking Pencil is strictly prohibited.

Reference Section III – Standard Clauses – Standard Clause A.4 for more information regarding markings.

## **Modification to Purchases of K-Monel, QQ-N-286**

If any NiCuAl (K-Monel) Material is utilized for this order, it must be in accordance with one of the following modifications:

- A) QQ-N-286 Revision F dated 29 November 1990 and have been produced only by Special Metals Corporation (formerly Inco Alloys International/Huntington Alloys Inc.) with a production (pour) date later than December 21, 1976.

Test reports for each heat and lot of material furnished showing actual results of chemical analysis, mechanical property testing and first article testing\* required by the specification shall be furnished for Level 1 material and made available upon request for Level N material, unless otherwise noted in purchase order.

First Article Testing per paragraph 3.1 of QQ-N-286 revision F is required for all heats produced after February 19, 2001. Special Metals Corporation was exempt from First Article Testing for all heats produced prior to February 19, 2001.

Additionally, the following Special Metals Corporation heat numbers are not permitted to be used.

M00J6KG	M00J7KG	M01J1KG	M02J8KG
M02J9KG	M03J8KG	M04J2KG	M04J6KG
M04J7KG	M06J5KG	M06J8KG	M11J2KG
M11J3KG	M11J4KG	M11J5KG	M15J6KG
M17J2KG	M17J3KG	M17J4KG	M18J7KG
M19J7KG	M21J2KG	M22J7KG	M22J8KG
M23J2KG	M24J5KG	M26J8KG	M26J9KG
M27J9KG	M28J4KG	M30J9KG	M31J9KG
M33J7KG	M34H4KG	M35H0KG	M35J0KG
M35J7KG	M35H8KG	M36H7KG	M36J2KG
M36J3KG	M37J4KG	M39J3KG	M41J1KG
M41J2KG	M41H3KG	M41J3KG	M41J7KG
M41J8KG	M44J4KG	M44J6KG	M45J2KG
M45J8KG	M45J9KG	M46J7KG	M52H9KG
M61J8KG	M61J9KG	M62J5KG	M64J4KG
M64J5KG	M64J6KG	M67H2KG	M67J4KG
M69J1KG	M70J6KG	M73J4KG	M76H6KG
M80H2KG	M80H3KG	M84H9KG	M85H0KG
M88H6KG	M88H7KG	M89H5KG	M89H6KG
M92H0KG	M95H7KG	M97H8KG	M99H3KG

\*If required based upon production date

B) Revision G, with the following modifications:

Revise paragraph 4.2.2.2 of QQ-N-286G as follows:

4.2.2.2 Slow Strain Rate Tensile Tests. Three Specimens shall be prepared and tested per lot. Specimens shall be taken after the final heat treatment. When material is shipped in the annealed condition, specimens may be taken after the final anneal and shall be heat treated in accordance with 4.3.6.1.

4.2.2.2.1 Bar Rod and Forgings. Slow Strain Rate Tensile Test specimens shall be taken from one end of a bar, rod, or forging at the quarter diameter (half radius) and in the longitudinal direction. Bars, rods, or forgings too small to have a Slow Strain Rate Test specimen taken from the quarter diameter that are taken from a lot (See 4.2.1.3) that does not have any larger sizes shall have the specimens taken from the center and in the longitudinal direction. Bars, Rods, or Forgings too small to have a Slow Strain Rate Test specimen taken from the center that are taken from a lot (See 4.2.1.3) that does not have any larger sizes shall be taken from the heat at the latest intermediate rolling or forging step that a Slow Strain Rate Test specimen can be taken from the mid-radius and heat treated using the same heat treatment procedures used on the production heat.

4.2.2.2.2 Wire. Slow Strain Rate Tensile Test specimens shall be taken from the heat at the latest intermediate rolling or forging step that a Slow Strain Rate Test specimen can be taken from the mid-radius and heat treated using the same heat treatment in accordance with 4.3.6.1.

4.2.2.2.3 Sheet and Plate. Slow Strain Rate Tensile Test specimens shall be taken from one end of a plate at the quarter thickness and in the longitudinal direction. Plate too small to have a Slow Strain Rate Test specimen taken from the quarter thickness may have the specimens taken from the center and in the longitudinal direction. Sheet and plate too small to have a Slow Strain Rate Test specimen taken from the center may have the specimens taken at the latest intermediate rolling step that a slow strain rate test specimen can be taken from the quarter thickness.

Revise paragraph 4.3.6.4.4 of QQ-N-286G as follows:

4.3.6.4.4 Testing Laboratory: Slow Strain Rate Tensile Testing shall be performed by a NAVSEA approved test laboratory. The following is a listing of the currently approved test laboratories, any one of which may be used at the vendor's discretion.

Huntington Alloys, A Special Metals Company  
Attn: Frank Veltry  
3200 Riverside Drive  
Huntington, WV 25705

Metallurgical Consultants, Inc,  
Attn: W.M. Buehler  
4820 Caroline  
P.O. Box 88046  
Houston, TX 77288-0046

Naval Surface Warfare Center, Carderock Div.  
Attn: Charles Roe  
Code 614  
9500 MacArthur Blvd.  
West Bethesda, MD 20817-5700



ATI-Allvac-Allegheny Technologies Inc.  
Attn: Dr. W.D. Cao  
2020 Ashcraft Ave.  
Monroe, NC 28110

Mannesmann Rohrenwerke  
Mannesmann Forschungsinstitut (MFI)  
Attn: Dr. Weiss  
Postfach 251160  
47251 Duisburg Germany

Westmoreland Mechanical Testing & Research, Inc.  
Old Route 30, Westmoreland Drive  
PO Box 388 Westmoreland Drive  
Youngstown, PA 15696-0388

Revise paragraph 6.2 as follows:

- S) The laboratory conducting the Slow Strain Rate Testing shall be one approved by NAVESA (see 4.3.6.4.4)

Note: First Article Testing invoked elsewhere in this purchase order does not apply to material produced in accordance with revision G of QQ-N-286.

FIGURE 4: Delete caption and replace with “Template for slow strain rate fracture test evaluation. Concentric Circles 2.5000”, 1.5625”, and 0.6250” in diameter in a 3.5” by 4.5” frame”.

#### **Special Requirements for NiCu, NiCuAl and CuNi Alloy Parts**

The sulfur content of the gas and oil fuels used in firing furnaces for forging, extruding, or other hot working processes and for heat treatment of NiCu(N04400), NiCuAl (N05500), CuNi (C70600 and C71500), and other nickel or nickel base alloys shall be limited as follows:

1. GAS: 30 Grains per 100 cu ft. maximum
2. OIL: 0.5% by weight maximum

**Requirements for CuNi Castings (ref EB s/c 10-133)- Supplemental Testing Requirements for CUNI 70/30 castings poured in accordance with Mil-C-20159 or ASTM B369.**

The following supplemental requirements apply to the manufacture and testing of CuNi 70/30 castings for Electric Boat Corporation (EB) or Huntington Ingalls Industries-Newport News Shipbuilding (HII-NNS) purchase orders:

The Foundry must be on the Huntington Ingalls/NNS or Electric Boat's approved CuNi foundry list, and the following will apply:

- 1 For each heat, the foundry shall test and have available a chemical test report for an "A" (beginning of pour into the mold(s)) and "B: (end of pour into the mold(s)) chemistry test coupon. Heat analyses or product analyses are permitted. Both "A" and "B" analyses shall conform to specification. For product analyses, particular care shall be taken to ensure that the sampling locations on the casting(s) correspond to the beginning and end of the pour. The test reports and the chemistry coupons s shall be identified as "A" and "B" in addition to the lot number traceability.
- 2 Mechanical test specimens are to be taken from material poured no sooner than 50% through the pour of the lot into the mold(s).
- 3 The foundry or supplier shall maintain the "A" and "B" chemistry coupons (heat analyses)/samples (product analyses) and the mechanical test specimens, and their respective test results, as objective quality evidence, subject to audit and further analysis by buyer and/or HII/NNS-EB.
  - a. Retention time shall be a minimum of seven (10) years.
  - b. Notify buyer or HII/NNS-EB or both for disposition instructions prior to disposal of records and specimens.
- 4 Buyer's, HII/NNS-EB or other Navy end use products may be poured in the same heat; however, the lot shall be unique to Buyer, HII/NN-EB, and/or U.S. Navy end-use product. No other customer's product shall be included in the lot.
  - a. Chemistry and mechanical test report submittal shall be in accordance with the requirements contained elsewhere in the purchase order. Unless otherwise specified elsewhere in the purchase order, the "B" coupon chemistry test results shall be submitted. Note that this clause does not mandate submittal of test reports.
- 5 The intent of the requirements herein is to provide a high degree of assurance that the chemical and mechanical conformance test results are representative of the entire casting heat lot, with recognition that the Mil-C-20159/ASTM B369 lot definition allows for significant intra-lot variations in properties.
- 6 Approval of recurrent foundry-specific variances from these requirements may be requested through submittal of a vendor procedure approval request to our customer (EB/NNS). Any such requests shall include technical justification for why the requested variance still satisfies the intent of this standard clause. As appropriate, depending on the specific details, EB/NNS may approve the variance for all products produced by the foundry, or limit the approval to certain part number(s), casting process, lot size, etc.

### **III. Outside Services Quality Requirements**

Definition – As used in this section. “Outside Service” means any subcontractor performing but not limited to Machining, Heat Treatment, Non-Destructive Testing, Plating, etc. Official records shall be retained for a period of ten years after completion of purchase order. HVC reserves the right to inquire or request additional information on past purchase orders

#### **No Welding Permitted**

Should an error occur, return the component to HVC for evaluation. HVC will either replace the material at the subcontractor’s expense or perform qualified weld repair.

#### **Traceable Identification Markings**

- Traceable markings are identified as:
  - Bar Stock and Forgings: 3 or 4 alpha digits as assigned by HVC i.e. ABC, ABC-1, XABV, XABV-1, W-9, W9-1
  - Castings: casting manufacturer's heat number i.e. 88978, J4035 and RT Number i.e. WP697, 68410 and RLS Number: RLS 10985 when applicable.
- Restore all traceable identification markings after machining.
- All material with different traceable identification markings are to be segregated during machining.
- Should traceability be lost notify HVC Process Engineer immediately. DO NOT ATTEMPT TO ESTABLISH TRACEABILITY ON YOUR OWN.

#### **Re-identification may be accomplished by**

- Apply the traceability identification with a Dykem High Purity Black pen supplied by Hunt Valve.
- If material is too small to mark with the Dykem pen, tie a wire tag or bag and tag the material with the identity securely to the material.
- Vibro Etching the identity in a non-working area to maximum depth of .010 inches-only if approved by Hunt Valve prior to etching.

#### **Non-Conformances**

- All non-conformances and deviations must be issued to Hunt Valve in writing using Form Q4.4.4A or Vendors similar form prior to shipment unless otherwise authorized. See clause B.3. See Deviations/Exceptions under Section I General Requirements.

#### **Segregation of Material**

- Conforming and non-conforming material must be kept segregated. Level 1 non-conforming material must be marked as “Level 1” and be segregated from non-Level 1 nonconforming material. All non-conforming must be returned to Hunt Valve identified by a red tag or other means that make it identifiable as non-conforming.

#### **Do Not Substitute any HVC Supplied Material**

Should scrapping material supplied by HVC become necessary, notification to HVC is required. HVC will replace the material at the vendor’s expense.

### **Stockpiling of HVC Material is Prohibited**

If HVC has issued more material than what is needed for a job, return all excess material.

*Note: The excess material must bear all original identification.*

### **Subcontracting of Supplied Material is not Permitted without prior HVC Approval**

If outside processing is required any sub-tier operations must first be approved by HVC prior to placement of the material with a vendor's subcontractor. When clause A.8 is invoked all contract requirements must be passed down to the subcontractor.

### **Sufficiently Protect Machined Surfaces During Transport, Damaged Items due to Improper Packaging or Handling shall be Liable to the Vendor.**

### **Inspection**

All machined components must have 100% inspection performed. The Inspection Reports shall be maintained at your facility and made available to HVC upon request. The Inspection Documents shall include acceptance criteria, part number, purchase order number, HVC work order number, quantity and trace code/heat code markings as applicable.

Failure to comply with these requirements will be cause for Hunt Valve to disqualify the vendor as an approved machining subcontractor.

Non-conformances identified during HVC Receipt Inspection will initiate back charges for all HVC machining and material costs. These back charges shall be directly charged to the offending vendor.

### **Hole Tolerance Chart**

Unless otherwise specified, dimensional tolerances for all round holes shall be controlled by the Hole Tolerance Chart as it appears on the applicable drawing regardless of whether the hole was drilled, bored, EDM'd, or machined by some other means. This includes counter bores.

### **Threads**

All threads shall be in accordance with FED-STD-H28.

### **Heat Treatment**

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 recorded rate (i.e. inches/hour) shall be annotated. For Post Weld Heat Treat (PWHT); the certification must list the base material condition and temper, as applicable, as used by the base metal producer.

The following are the minimum requirements for a C of C: (Ref A.1 clause, Section IV Standard Clauses)

The HVC Purchase Order Number, part number, part number description, work order number, drawing number, drawing revision, brief statement of work being performed, mercury free statement, trace markings if required and quantity are to be listed on certifications.

Trace markings shall include but are not limited to Hunt Trace Code, RLS number, RT number and heat number.

## IV STANDARD CLAUSES

The following Standard Clauses form a part of this Purchase Order, **WHEN SPECIFICALLY INVOKED**. Acceptance of this Purchase Order indicates that you will comply with the invoked Standard Clauses. All inspections or tests invoked by the Purchase Order, drawings, or invoked specification must be performed. Objective Quality Evidence (records) of the required inspection/test must be maintained.

**Official records shall be retained for a period of ten years after completion of purchase order. HVC reserves the right to inquire or request additional information on past purchase orders.**

### MATERIAL CERTIFICATION

Clause A.1 A Certificate of Conformance (C of C) is required. The specification and revision, along with class/grade and condition of material are required on the Certificate of Conformance. The country of origin of the raw material (melt source) must be listed. When a Revision Date is not cited on the Purchase Order, the actual Revision Date used for the required Specification **MUST** be supplied on the Certificate of Conformance. The HVC purchase order number, part number, part number description, work order number when applicable, and quantity must appear on Certificate of Conformance. The Certificate of Conformance must bear a signature, with a typed or printed name and title of an authorized representative of the vendor. No material substitutions shall be made without written authorization from HVC. Material substitutions not authorized by HVC shall be subject to rejection. Statements on certification documents must be positive and unqualified. Words such as "to the best of our knowledge" or "we believe the information contained herein is true" are not acceptable. All markings are to be performed in accordance with MIL-STD-792 para. 4.1, Type I-IX. Electric Arc Marking is strictly prohibited.

Clause A.2 This material requires complete chemical and mechanical Heat Lot traceability to the original mill.

a. A true and exact copy of the original mill certification, along with the original melt certification, if applicable, is required. **This mill certification must bear the typed or printed name and title, along with the signature of an authorized representative of the original mill. All certifications must be in English.** Any transposition of test results from the original mill cert to yours, or any other letterhead, is ACCEPTABLE, but must be noted on your certification. Statements on certification documents must be positive and unqualified. Words such as "to the best of our knowledge" or "we believe the information contained herein is true" are not acceptable. Each certification must bear the specification number and the revision date. When a Revision Date is not cited on the Purchase Order, the actual Revision Date used for the required specification must be supplied. The original Mill Certification documents must include a statement "The reported results represent the actual attributes and indicate full compliance of the material furnished with all applicable specifications." This statement is applicable to all material produced and tested on and after January 1, 2007.

If the material furnished has been worked, i.e. forged, cast, cold formed, or heat-treated, 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 mechanicals certified for that material in its final condition.

b. Certification and certified test reports are essential to acceptance of the material and must be received prior to receipt of the hardware items to which they correspond, or the shipment will be rejected and the invoice will not be paid.

Clause A.3 All parts shipped shall be controlled by Heat Lot and/or unique trace code number and marked individually with that mark.

|| Clause A.4 **Material Traceability Marking**  
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, including heat treat shall be maintained as Official Records. Each shipment of material must be clearly identified to its Documentation Traceability as pertains to raw material heat number and a heat treat lot number (if applicable) or a unique trace code number

**LEVEL 1 COMPONENTS**

- Material Marking Techniques for Level 1 Components, Component Parts or Piping must be in accordance with one of the Permanent Marking methods per MIL-STD-792, para. 4.1, Type I-IX, unless otherwise specified.

**RAW MATERIAL**

- Material Marking Techniques for Barstock and other forms of Raw Material must be in accordance with the *applicable material specification*. The following methods are acceptable to HVC:
- Permanent Marking methods per MIL-STD-792, para. 4.1, Type I-IX, as applicable.
- Or, recognized Temporary Marking methods such as:
  - Bundle-and-Wrap of each line item with Shrink Wrapped Identification Tag.
  - Wire-Tag affixed to item/bundle
  - Paint Stick identification on each piece/bundle
- Or, recognized Other Alternate Methods
  - Items too small to mark or items that cannot be marked, i.e. non-metallic material can be controlled by bags, tags and/or boxes

|| Clause A.5 **Casting Certifications**

Certification of material requirements (chemical and mechanical properties) must bear as a minimum:

- Specification, Revision, Type, Grade, Class, Condition etc.  
When a Revision Date is not cited on the Purchase Order, the actual Revision Date used for the required specification must be supplied on the Certificate of Conformance.
- The Signature, Typed or Printed Name and Title of the Person responsible for the testing.  
Chemical and Mechanical properties reported on certifications shall meet the specification exactly.
- Any weld and NDT procedures used in the process of material must be documented on certifications.  
Weld Rod certifications must be submitted with certifications.
- Statements on certification documents must be positive and unqualified. Words such as "to the best of our knowledge" or "we believe the information contained herein is true" are not acceptable.
- Certifications for XRAYED material must state that XRAY was accomplished and state RT number on all documentation.
- Material certification data (chemical analysis, mechanical and physical testing) must be recorded on the testing company's letterhead. Certification data supplied to the purchaser shall be either the original mill certification, original certification from the testing facility or exact photocopies of the original certifications.



Marking requirements:

Each shipment of material must be clearly identified to its certifications as pertains to heat numbers, heat codes and/or unique trace code number. Unless otherwise specified, Material Marking Techniques must be in accordance with MIL-STD-792. Die Stamping is not a preferred method. If Die Stamping is utilized only round bottom, low stress Die Stamps are permitted and shall be applied on low stress areas such as a flange rim, boss, or an integral pad.

Clause A.5 (continued)

Casting Visual Examination (a.k.a. "VT") requirements:

- All castings received from an approved vendor require certification for compliance to MIL-STD-278F, Section 12, Casting Inspection, or S9074-AR-GIB-010/278, as dictated by the Purchase Order.
- Certifications showing the results of Visual Inspection LAW MIL-STD-278 or S9074-AR-GIB-010/278 are required. The Procedure Number, Title, and Revision level that was used shall be referenced on the Certification.
- Marking to confirm Visual Examination  
"VT" is to be vibro-etched on the casting to confirm Visual Examination. Blue layout ink shall be applied first to highlight the marking.

Requirements for Radiography of Castings:

When Casting Radiographic examination is required by the Purchase Order or Specification, the Radiographic Technique requirements of MIL-STD-271F or T9074-AS-GIB-010/271 are supplemented by the following:

- EB S/C 76-24: The requirements contained herein shall apply to the seller's and any sub-tier supplier's NDT activity performing radiography of castings used in fulfilling the requirements of this purchase order.
  - 1) All radiography of castings (RSSS), when invoked by this purchase order or any sub-tier documents (i.e., fabrication and material specifications, drawings, etc.) must be performed in accordance with an approved RSSS, which shows film placements and radiation directions to assure adequate radiographic coverage as specified by the Engineering drawing. If a customer approved RSSS already exists, the preference is to use this sketch versus development of a new RSSS. Please submit a request for an approved sketch prior to development.
  - 2) The RSSS must indicate and be approved for sand or investment casting process. The acceptance criteria is different between the two processes, therefore, a separate RSSS must be used and approved for each process.
  - 3) The contractor or activity performing the radiography shall prepare the RSSS, which shall be validated by a signature of a certified radiographic inspector. The RSSS may be developed independently on a first article casting or as part of the production inspection process. As a minimum, the requirements of 3.4.14 of T9074-AS-GIB-010/271 provides specific detailed requirements which shall be contained on the RSSS.
  - 4) The seller shall forward to the buyer the RSSS, as well as all qualifying radiographs via a properly completed vendor procedure approval request (VPAR). The buyer must approve the RSSS prior to shipment of hardware. All radiographs required to approve the RSSS at the buyer's facility must be sent to the attention of the buyers purchasing department.
  - 5) Radiography of more than one casting per film is prohibited.
  - 6) The following identification shall appear on each radiograph, as a result of exposure of the film:
    - A) RT serial number for the casting

- B) Film location markers, film placements and radiation directions in relation to the part, and the drawing view that provides the design dimensions used to determine material thicknesses for penetrameter selection.
- 7) Date of exposure shall appear on each radiograph (either by exposure or by punching)
- 8) Identification of the organization making the radiographs. This shall also appear on the reports accompanying the radiograph submittal.
- 9) Radiography of a repaired area shall be in accordance with the same technique as used for original radiography. Radiographs shall be identified with the same serial number used for original radiographs followed by the letter R and a numeral 1, 2, etc., to indicate the number of times the area involved has been repaired. (Note: only one RT number per casting).
- 10) Revisions to radiographic standard shooting sketches (RSSS) to reflect use of NAVSEA Technical Publication T9074-AS-GIB-010/271 or NAVSEA Technical Publication T9074-AR-GIB-010/278 are not mandatory.
- 11) Deviations from an RSSS, except for the permissible variations as noted below, shall be submitted to the buyer for re-approval. Permissible variations are either a substitution for, or a change in the following:
  - A) Source strength
  - B) Film quantity and size provided intended thickness range and areas are shown.
  - C) Film type provided applicable quality level is obtained.
  - D) Penetrameter size (smaller than approved only).
  - E) Reduction of source-to-film distance, if within the limitation of the required specification invoked by the purchase order.
  - F) Source type, if allowed by source substitute table below:

Source shown on RSSS	Allowable substitutes (See Note 2)
Cobalt-60	Iridium-192, X-ray (any voltage), Betatron
Betatron	Iridium-192, X-ray (any voltage), Cobalt-60
Iridium-192	Cobalt-60, X-ray 400 KV maximum (Note 1)
X-ray, 400 KV Maximum	Iridium-192
X-ray, over 400 KV	Iridium-192, X-ray (any voltage), Cobalt-60, Betatron

Notes:

- a) If the approved RSSS allows 4T sensitivity for Iridium-192, this allowance does not apply to the source substituted.
- b) Where a substitute source is used, the material thickness versus energy ranges used must be consistent with those required by Figures 1, 2 and 3 of T9074-AS-GIB-010/271.
- 12) Permissible variations, including recording the actual material thickness when using a penetrameter larger than specified on the radiographic shooting sketch, must be identified on a suitable form and accompany the radiograph.
- 13) Film packaging for shipment: Each individual film envelope shall have only one (1) set of film (one (1) serial number). Each set of views shall be separated by paper within the envelope. Each film set shall include a copy of the reader sheet and the RSSS that the film was shot in accordance with.

a. Chemical Composition Certification:

- Re-melted Master Process-After de-oxidation, the heat pour from a re-melted master heat ingot shall be assigned the same heat number as the master heat for certification of the chemical composition.
- Continuous Cast Process-When continuous cast, or pour, processes are used, test reports shall be of representative samples taken at least twice for each eight (8) to ten (10) hours of operation.
- Statements on certification documents must be positive and unqualified. Words such as "to the best of our knowledge" or "we believe the information contained herein is true" are not acceptable.

b. Mechanical Property Certification:

- All castings shall be heat treated in accordance with the applicable specification (e.g. ASTM A744 and ASTM A296 Table 1 of specification).
- ASTM A216 or ASTM A217 shall be furnished as specified by the purchase order.
- Test bars must be heat treated with the castings they represent.
- Certification of mechanical properties shall be determined from material representing each heat treatment lot.
  - The definition of a lot: Castings originated from the same master heat, size, and configuration and heat treated in the same furnace charge.
  - Heat Treatment Certification is required and shall specify, as a minimum:
    - time and temperature of the heat treatment
    - date performed
    - name of company performing heat treatment
    - resulting hardness, if specified in the material specification
- Statements on certification documents must be positive and unqualified. Words such as "to the best of our knowledge" or "we believe the information contained herein is true" are not acceptable.

Clause A.6 Material Certification Format

- The format for all certifications, for Material, must be in accordance with Data Item DI-MISC-81020A, a copy of which can be obtained through Hunt Valve Company or accessed through our website. This format must be followed for ALL Level One material and Non-Level One (excluding chemical and mechanicals).

Clause A.7 Mercury-Free Certification

Material requires Mercury-Free Certification with each shipment. Material furnished under this purchase order shall not contain, nor have been in contact with, mercury in any form. If you suspect external mercury contamination (i.e. caused by mercury bearing instruments and/or equipment broken in the vicinity), you will contact Hunt Valve Company, Inc., purchasing department for instructions immediately. Do not ship prior to contact.

Clause A.7Mod Mercury-Free Commodities Deleted-----3/6/18

Clause A.8 Sub-Tier Pass down of Requirements

All clauses required by the Purchase Order and Purchase Order Continuation Sheet, (except B.2, Government Source Inspection) shall be imposed on each sub-vendor who performs work, tests, or supplies material to meet the terms of this contract.

Clause A.9 Calibration and Quality System Requirements

All measuring and test equipment used to inspect, measure, gauge, test, or control a process to establish or assure compliance to this Purchase Order and/or its invoked drawings/specifications must be calibrated. Calibration shall comply with Mil-Std-45662 at a minimum. Comparable industry standards such as "ISO" will be considered as an alternative. Evidence of these calibrations and their traceability to National Institute of Standards and Technology (NIST) must be maintained and be available for review by Hunt Valve or its customer. This Purchase Order requires a Quality System that complies with Mil-I-45208 at minimum. Comparable industry standards such as "ISO" will be considered as an alternative.

Clause B.1 Facility Access

Hunt Valve reserves the right to have access to your facility for the purpose of a quality survey and/or source inspection by Hunt Valve and its customers, including Government Source Inspection, upon the premises of the vendor. Vendor, without additional cost, shall provide all reasonable facilities and assistance for convenience and safety of such inspectors, as required by Hunt Valve and its customers, including Government Source Inspectors.

Clause B.2 Government Source Inspection (GSI)

Government inspection is required prior to shipment from your plant or sub-vendor's plant, when specified.

- 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.
- On receipt of this Order, promptly furnish a copy to the Government Representative who normally services your plant or, if none, to the nearest Army, Navy, Air Force, or Defense Supply Agency inspection office.
- In the event the representative or office cannot be located, our Purchasing Manager shall be notified immediately.
- Hunt shall provide a copy of Purchase Orders with contract number to our in-house DCMA representative.
- Note: Government inspection/verification at the Vendors:
  - ✓ **Is not, nor can be used as, evidence of effective control of quality by the Vendor**
  - ✓ **Does not absolve the Vendor of responsibility to provide adequate product**
  - ✓ **Does not preclude Subsequent Rejection at HVC, if a Non-Conformance is later identified.**
- Proof of GSI acceptance must be documented on certifications prior to receipt of material at HVC.

Clause B.3 Submarine/Ship Safe Material

These materials or articles are essential to the ship's mission, failure of which, due to nonconformance to specification requirements, would jeopardize personnel safety, vital to shipboard systems or the ship itself. All non-conformances and deviations must be issued to HVC in writing using form Q4.4.4A prior to shipment unless otherwise authorized. Issues will be addressed by HVC Engineering as appropriate and returned to vendor with disposition. Form Q4.4.4A may be obtained through Hunt Valve Company or accessed through our company website.

Clause B.4 Foreign Sourcing Restrictions

- Only domestic raw material (bar, hex, plate, etc.) of US manufacture or alternate material per qualifying countries listed in The Defense Federal Acquisition Regulation Supplement Part 225-Foreign Acquisition, para 225.872-1 is acceptable. Any other material will not be accepted. For suppliers of Specialty Metals reference Defense Acquisition Regulation Supplement Part 252.225-7008 and 252.225-7009 as applicable. Reference prior clause 252.225-7014. For suppliers of Certain Magnets, Tantalum, and Tungsten material reference DFAR Clause 252.225-7052 no material from the Democratic People's Republic of North Korea, People's Republic of China, Russian Federation or Islamic Republic of Iran is permitted.
- Objective Quality Evidence (OQE) shall be provided at time of shipment to validate only domestic raw material was used per this clause and applicable FAR clauses.
- Restriction on Ball and Roller Bearings and Components shall be manufactured in the United States or Canada per DFAR 252.225-7016. HVC shall be notified prior to shipment if these requirements cannot be met.
- Restrictions on certain foreign purchases as per Far Clause 52.225-13 also applicable. **HVC SHALL BE NOTIFIED PRIOR TO SHIPMENT IF THESE REQUIREMENTS CANNOT BE MET.**

Clause B.5 Deleted --- 3/13/02 --- no longer used.

Clause B.6 Deleted – 03/13/02 – no longer used.

Clause B.7 Welding Requirements

- Production welding and/or weld repair shall be in accordance with MIL-STD-278 or S9074-AR-GIB-010/278, as applicable.
- Weld procedures and personnel shall be qualified in accordance with MIL-STD-248 or S9074-AQ-GIB-010/248, as applicable.
- Nondestructive testing (NDT) shall be in accordance with MIL-STD-271 or T9074-AS-GIB-010/271, as applicable.
- Approval of procedures and qualification data is required from Hunt Valve and HVC's customer. Provide a copy of any previous approvals (VPAR) from Electric Boat, HII Newport News, NAVSEA or DSCC.
- All repair welding (including minors) shall be documented on a detailed repair sketch provided to HVC.
- All repair weld records shall be provided for approval with final certifications, which should be sent electronically in parallel to material shipment to HVC.
- Special Repair Welds and weld repair to forgings require advance approval from HVC and /or HVC Customer, prior to performing the repair and will only be considered on high value material.
- Any violation of Purchase Order requirements or invoked specifications will be cause for rejection.
- Vendor invoice will not be processed for payment unless all requirements of the Purchase Order are in compliance.

Clause B.8 Deleted 11/23/05 Clause incorporated with Clause A.9

Clause B.9 Deleted 1/10/06 Special Requirements defined in body of Purchase Order