## ELECTRIC BOAT CORPORATION APPROVALS

<table>
<thead>
<tr>
<th>ORIGINATING DEPT.</th>
<th>WRITTEN BY</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>323</td>
<td>C. Roseme</td>
<td>1/28/13</td>
</tr>
<tr>
<td></td>
<td>R. Smelings</td>
<td>1/28/13</td>
</tr>
<tr>
<td></td>
<td>R. Slack</td>
<td>1/29/13</td>
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## OTHER APPROVALS

<table>
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<th>APPROVED BY</th>
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## REVISIONS

<table>
<thead>
<tr>
<th>REV.</th>
<th>ELECTRIC BOAT CORPORATION APPROVAL</th>
<th>DATE</th>
<th>OTHER APPROVALS</th>
<th>DATE</th>
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<tbody>
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GENERAL QUALITY ASSURANCE
REQUIREMENTS FOR SUBCONTRACTED
PROCESSING OF ELECTRIC BOAT SUPPLIED MATERIAL

RECORD OF REVISIONS

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
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<tbody>
<tr>
<td>G</td>
<td>The entire procedure has been rewritten</td>
</tr>
</tbody>
</table>
| H        | Revised Paragraph 2.3.6  
Revised Table 1  
Revised Paragraph 2.4.9.4  
Revised Paragraph 2.4.9.5  
Revised Paragraph 5.2 |
1. PURPOSE

1.1. The purpose of this specification is to set forth the general quality requirements for subcontracted processing of Electric Boat Supplied material.

2. SUPPLIER QUALITY PROGRAM

2.1. Organization

2.1.1. The Supplier shall assign one of their personnel to be familiar with the requirements of this document and assure that it is complied with. The requirements of this document must be promulgated by the Supplier to their key personnel working on Electric Boat contracts.

2.2. Plan and Specification Control

2.2.1. The Supplier shall ensure that their personnel work to the plan and specification revisions required by the Electric Boat purchase order.

2.3. Documentation

2.3.1. Signatures / Initials / Badge Numbers / Inspection Stamp on official records are verification that the action identified has been performed in accordance with requirements and the results are as recorded.

2.3.2. Certifications shall be based on personal observations, other certified records, or direct reports from assigned personnel. Original raw inspection data sheets shall be retained when data are transcribed or summed on other forms.

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

2.3.4. The Suppliers may provide a test report under their letterhead listing the results of all tests performed provided copies of the original testing results on testing activity letterhead are also included. In such cases, the Supplier's report shall clearly denote that the data is transcribed data.

2.3.5. 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.
2.3.6. The supplier is required, unless permission is granted in via a Vendor Information Request (VIR, Form 84-01-2205) or supplement to the purchase order, to use the same unit of measurement as specified in the technical data package when reporting inspection and acceptance data.

2.3.7. The use of ditto marks and continuation arrows are not acceptable for repeated data, initials or signatures.

2.3.8. Corrections to official records shall be made by drawing a single line through the incorrect entry. Corrections to official records should be made by the person who made the original entry, a supervisor or a person assigned by the supervisor and must be initialed and dated in permanent ink. The original entry must remain legible. Erasure or other obliteration of information on official records is prohibited.

2.3.9. When additional information is added it shall be initialed and dated.

2.3.10. When a document is retyped, in portion or completely, to correct or add information, it shall be identified as a “CORRECTED COPY” and all changes shall be identified (e.g. *). The document shall be resigned and dated.

2.3.11. Implementation of an Electronic Signature application requires purchaser approval prior to use. Suppliers shall request approval of their Procedure/Method to control electronic signature application via a VPAR.

2.4. Material Control

2.4.1. The Supplier shall, for all material furnished by Electric Boat, promulgate a procedure to accomplish the following:

2.4.1.1. Inspection upon receipt for shipping damage, correct material, and quantity.

2.4.1.2. Periodic inspection and precautions to assure adequate storage conditions and to guard against damage from handling and deterioration during storage.

2.4.1.3. Identification and protection from improper use or disposition.

2.4.2. The Supplier shall establish a system by marking and/or segregating to ensure that the material supplied by Electric Boat is not commingled with other materials in their facility. The Supplier shall not substitute their material.
material for Electric Boat material without prior approval of Electric Boat in writing via VIR.

2.4.3. On Electric Boat supplied material, the Supplier is to assure that:

2.4.3.1. Material identification marking on material received is in agreement with the accompanying document.

2.4.3.2. The final marking, in addition to the purchase order requirements, to be maintained on the material in accordance with Table I. Required markings will be maintained throughout all operations. If there are any questions or concerns, contact your buyer for an Electric Boat Supplier Quality point of contact.

<table>
<thead>
<tr>
<th>TYPE OF MARKING</th>
<th>MAINTAIN?</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous VIR Number</td>
<td>NO</td>
<td>SVY123-005</td>
</tr>
<tr>
<td>Size and Thickness</td>
<td>NO</td>
<td>30.00x6.79x3.00</td>
</tr>
<tr>
<td>EB3952 Designator</td>
<td>YES</td>
<td>NCA</td>
</tr>
<tr>
<td>Previous Drawing Number</td>
<td>NO</td>
<td>H765-4402</td>
</tr>
<tr>
<td>Basic Material Type</td>
<td>NO</td>
<td>HY-100, NICU,</td>
</tr>
<tr>
<td>Vendor Serial Number</td>
<td>YES</td>
<td>PPY241-001-1-2000-9</td>
</tr>
<tr>
<td>Previous Purchase Order Number</td>
<td>NO</td>
<td>PPY241-001</td>
</tr>
<tr>
<td>MIC #</td>
<td>YES</td>
<td>NCA10048-044G</td>
</tr>
<tr>
<td>Material Specification</td>
<td>YES</td>
<td>MIL-C-24723</td>
</tr>
<tr>
<td>Line Marking</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Color Code (For Level 1 Fasteners)</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Heat/Lot (If properties not altered)</td>
<td>YES</td>
<td>731236</td>
</tr>
<tr>
<td>NDT Marking</td>
<td>YES</td>
<td>UT, MT, RT, VT</td>
</tr>
<tr>
<td>Ship or Hull Identification</td>
<td>NO</td>
<td>XC, 779</td>
</tr>
<tr>
<td>Part Number</td>
<td>NO</td>
<td>19-87-2757</td>
</tr>
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</table>

Table I: Marking
2.4.3.3. When marking is performed by use of the vibro tool method on material in which marking legibility may degrade, the area being marked must be coated with a blue dykem type solution prior to etching.

2.4.3.4. Whenever mechanical properties are altered (i.e. through heat treatment), the material is uniquely re-identified to identify the new homogenous lot. The new unique lot number shall be marked on each piece in the lot and referenced on the accompanying test reports.

2.4.3.5. All markings shall be in accordance with MIL-STD-792

2.4.3.6. Unless the purchase order specifically identifies the area where permanent marking on an item should be applied, it shall be marked in an area that is readily accessible and unlikely to be obliterated during installation.

2.4.4. Certification is required that material supplied by the Electric Boat Buyer for use on the Electric Boat purchase order, in fact, were used by the Supplier in the manufacture and assembly of equipment on the Electric Boat purchase order without exception or substitution of other materials.

One (1) copy of the said certification, signed and dated by the Supplier’s authorized representative, is to accompany each shipment of material on the Electric Boat purchase order.

2.4.5. Process Control

2.4.5.1. Some specific processes (e.g. welding, repair welding, heat treat, and nondestructive testing) may require procedure approval, verification of personnel qualification, and/or a process audit by Electric Boat. Specific procedure/process approval requirements will be specified elsewhere in the purchase order.

2.4.5.2. Where radiography is required, the supplier shall review and approve all film. In addition, all film must be read and approved by Electric Boat prior to acceptance of the material.
2.4.6. **Indication of Inspection Status**

2.4.6.1. The supplier shall maintain a positive system for identifying the inspection status of material. Identification may be accomplished by mean of stamps, tags, routing cards, move tickets, tote box cards, or other control devices.

2.4.7. **Inspection Records**

2.4.7.1. The supplier shall maintain records of their inspections and tests. These records shall be maintained and available for audit by Electric Boat for a period of seven (7) years. At the end of the seven year retention period the Supplier may destroy the records.

2.4.8. **Measuring and Test Equipment**

2.4.8.1. Measuring and test equipment used for final inspection by the Supplier shall be calibrated in accordance with the requirements of MIL-STD-45662, ANSI/NCSL Z540-1, or ISO 10012-1.

2.4.9. **Inspection/Discrepant Material Control**

2.4.9.1. The Supplier is responsible for inspection of material on the Electric Boat purchase order in accordance with their normal inspection system.

2.4.9.2. Discrepant material shall be considered that which is not in conformance with the applicable plan, specification, purchase order requirement, or that which is considered to be substandard workmanship or otherwise containing deficiencies which are detrimental to the purpose intended.

2.4.9.3. The Supplier’s inspection procedures shall include adequate measures for positive segregation of discrepant material (in-process and finished material) from acceptable material to assure its removal from the manufacturing cycle. It shall be identified as being discrepant by stamps, tags, or other suitable marking and physically separated from acceptable material.
2.4.9.4. If in the Supplier’s opinion, discrepant material may be used as is or may be reworked using special processes, they must submit a request for deviation to Electric Boat. The request must be made on a VIR and must include a complete description of the deviation, the point in the manufacturing cycle where it occurred, the quantity affected, justification for Electric Boat acceptance, and corrective action taken to prevent recurrence of the deviation.

2.4.9.5. The Supplier shall also submit a VIR for requests of interpretation of or changes to the drawings, specifications, or purchase order. When the interpretation is not clear, no production work shall proceed until clarification is obtained in the form of Electric Boats written answer to the request.

2.4.9.6. All applicable shipping documents must be positively identified with all applicable VIR numbers when shipped to Electric Boat in order for the material to be acceptable. The material shall be marked with the VIR number as specified by the VIR. The Certification of Conformance shall include a list of any VIR’s submitted against the material being certified. The listing shall be provided substantially as follows:

<table>
<thead>
<tr>
<th>VIR NO</th>
<th>DATE CLOSED</th>
<th>DISPOSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VN999-999</td>
<td>9/9/99</td>
<td>Approved</td>
</tr>
</tbody>
</table>

2.4.9.7. In no case shall material which is known by the Supplier to vary from the purchase order requirements be shipped to Electric Boat without written approval of the buyer prior to shipment.

3. **INSPECTION**

3.1. Inspection at Supplier’s Plant

3.1.1. The Purchaser or Government reserves the right to audit processes and systems and 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.

3.1.2. The Supplier shall provide assistance to the Purchaser’s or Government’s representative during source inspection, audits, or other activities as may
be specified by contract. This will include, but not be limited, to the following:

3.1.2.1. Cooperation in establishing dates and times of visits to the plant facilities.

3.1.2.2. Providing requested information, documents, and escorts during audits, surveys, and shop inspections or tours.

3.1.2.3. Providing calibrated measuring & test equipment to the Purchaser and/or Government representatives to check product compliance.

3.2. Inspection Requirements for Threaded Holes

3.2.1. Tapped holes and fabricated internal threads shall be inspected in accordance with System 21 criteria per FED-STD-H28/20B. Inspection shall include use of appropriate size threaded internal functional, fixed limit Go/Not Go gages to verify the final tapped hole thread form. In addition, Go/Not Go cylindrical plug gages shall be used to ensure the threaded hole meets the minor diameter requirements of the threaded hole. Use of an inside micrometer or Intrimik to measure the thread minor diameter in lieu of a cylindrical plug gage is acceptable, but not required.

Note:

Insert threaded Go gage to full thread depth. Insert plain cylindrical plug Go gage to full depth. Not Go thread plug gage shall not enter more than 3 turns. Verify that the number of complete threads meet drawing requirements.

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 Huntington Ingalls Industries – Newport News Shipbuilding drawings or via purchase orders on items that are identified as “SMC CAT: 1”. All other applications may be sample inspected, unless otherwise specified by the applicable drawing.

The inspection records shall document accomplishment of the inspection of the threaded (tapped) holes and retained on file. No special objective quality evidence is required to be supplied to Electric Boat or Huntington Ingalls Industries – Newport News Shipbuilding. The Suppliers
Certification of Conformance that the material complies with the Purchase Order, Specification and Drawing Requirements is considered to adequately document accomplishment of this inspection.

4. **SHIPPING AND PACKAGING CONTROL**

4.1. Shipping and packaging controls shall be in accordance with the purchase order requirements

5. **IDENTIFICATION**

5.1. Prior to shipment, the Supplier shall ensure that all material is marked in accordance with the purchase order requirements and that the requirements of 2.4.3 have been complied with.

5.2. Marking methods shall meet the requirements of MIL-STD-792.

6. **AWARENESS OF MALPRACTICE PREVENTION**

6.1. Suppliers (management and employees) are contractually obligated and expected to meet all purchase order requirements. Suppliers are required to inform sub-tier Supplier's hired by the Supplier that they are likewise contractually obligated and expected to meet all purchase order requirements.

6.2. Suppliers and sub-tier Suppliers shall be aware and vigilant for Malpractice and Fraud and Falsification (F&F), as it affects contract compliance. All parties associated with product and services destined for ultimate delivery to the Purchaser must be aware that Malpractice and F&F are grave and serious matters. The act of Malpractice or F&F has the potential for severe and costly damages.

6.3. It is the responsibility of all parties to avoid the slightest possibility or appearance of impropriety or malpractice and to report known or suspected occurrences to the proper authorities. All personnel working within the program must be aware of malpractice and F&F, pitfalls that could lead to malpractice and F&F, methods to eliminate potential situations, and Purchaser expectations of supplier's, their employees, and subcontractors.

6.4. Consequences of malpractice and F&F could involve functional failure of product in operation on land or at sea, causing loss of equipment and life. Consequences also include severe dollar loss to the Purchaser, the Government, and the Supplier due to lengthy investigations, possible disqualification from future contracts, production shutdown, and loss of employment. Acts of malpractice or F&F will
result in purchase order contractual action and will also be subject to federal criminal prosecution for violations of law under Title 18 of the U.S. Code, Chapter 47, Section 1001.

6.5. Suppliers must ensure that employees and sub-tier suppliers are provided documentation and information necessary to perform assigned and contracted work correctly. Employees and sub-tier suppliers must follow established work procedures and contract documents to perform best possible effort within the program.

6.6. Any party aware of, or having reason to suspect, malpractice or F&F is obligated to report this violation anonymously or in person to:
6.6.1. Local Supervision or Management,
6.6.2. Purchaser Supervision or Management,
6.6.3. Purchaser Quality Representative,
6.6.4. Purchaser Buyer, or
6.6.5. Department of Defense Hotline
   • Telephone: (800) 424-9098
   • Website: http://www.dodig.mil/hotline/
   • Email hotline@dodig.mil or
   • Mail:
     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.

6.7. False allegations of malpractice and F&F are likewise serious matters and subject to federal investigation and prosecution. It is imperative that persons making allegations be knowledgeable and truthful with the facts and not be with vindictive or spiteful intent.