SIB

GENERAL DYNAMICS
Electric Boat

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In This Issue...

This issue of the Supplier Information Bulletin reiterates the importance of quality in the work we do each and every day. We'll share a few tips for submittals of VIRs, discuss our critical supplier scorecard, highlight a continuous improvement initiative from one of our suppliers, discuss cybersecurity and share some exciting Electric Boat news.

2017 Highlights

- **July — USS Oregon Keel Laying**
- **September — Delivery of the USS Colorado**
- **October — USS South Dakota Christening**

Feedback

Please let us know what you think about this bulletin!

Send content suggestions and comments to Kayla Monahan (860.433.9814) at EBSIB@gdeb.com

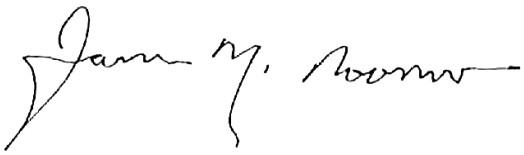
Letter to the Suppliers

As suppliers to Electric Boat, you provide the components and material to build one of the most complex machines on the planet. Our submarines send a nuclear reactor and its crew into an environment that does not otherwise support human life. The harsh environment that these machines are subjected to tests our ability as shipbuilders and suppliers to provide the material and workmanship to ensure the sailors aboard return home safe. Our commitment to quality, attention to detail, and questioning attitude are all required to ensure our submarines are able to complete the missions they set out for. From the beginning stages of manufacturing to final delivery of the boat, those sailors and their families are depending on all of us.

This year will collectively bring new challenges to the shipbuilding industry. Increased workloads and tight schedules will challenge us all to perform our very best. In 2018, we will continue to make progress on the Block IV Virginia-class ships, allowing for deliveries of Vermont (SSN 792) and Oregon (SSN 793) next year. Accomplishing these significant milestones will require collective focus and momentum in 2018.

As we face these new challenges, it becomes increasingly important that we are continuing to develop and train our workforce to prepare for the tremendous increase in work that is ahead of us. Every single one of us possesses the responsibility to ensure our future generation of shipbuilders and suppliers are well trained to accomplish this work. We must also instill the same culture of quality and ethics in our employees to ensure we are always providing the best product to the Navy.

Thank you for all you do.



Jim Noonan, Director—Supplier Quality

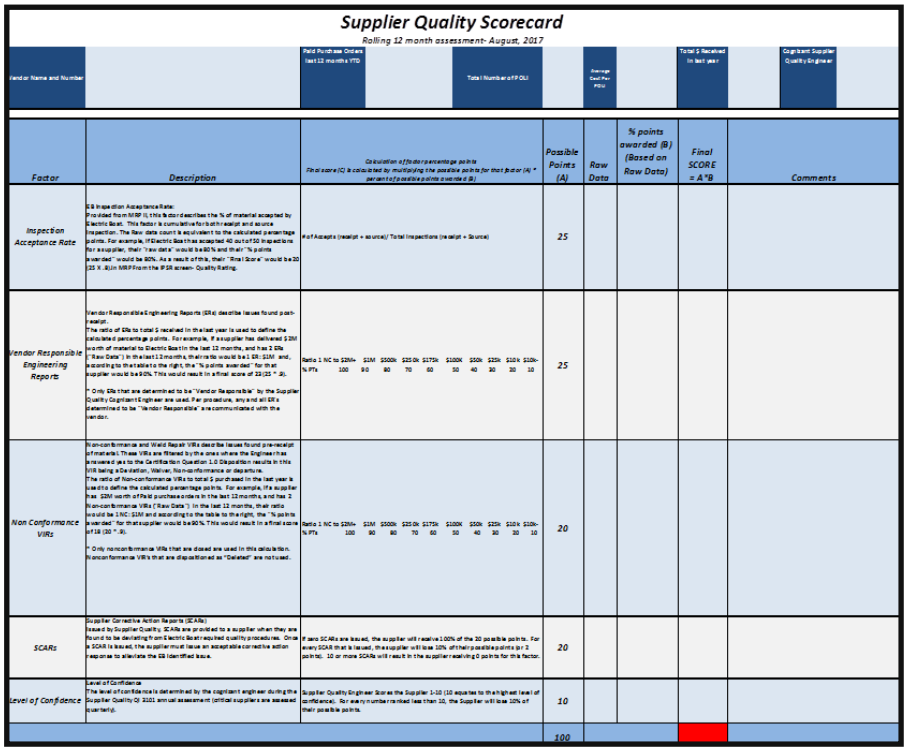
BEST PRACTICES

First Time Quality of VIRs

- A Vendor Information Request (VIR) serves as a change authorization for the PO line items it references. It is not recognized as a design change document for future procurement.
- Provide a complete description of the problem.
- Identify which requirement is violated (provide specification, drawing, standard clause, etc.).
- Provide a complete description of the root cause analysis performed and corrective actions implemented to prevent reoccurrence.
- Provide a recommendation (accept as-is or the rework required for repair).
- Provide sufficient technical justification to address all areas the nonconformance effects. If needed, contact the buyer for clarification.
- Provide a statement to address the impact if the VIR is disapproved.
- Ensure all referenced attachments are included.
- Properly cite all references (i.e., include document title, specification/report number (if applicable), revision, date, etc.).
- Review the VIR for quality, technical adequacy, and consistency prior to submission.

LESSONS LEARNED FROM THE SHIPYARD

Developing The Critical Supplier Scorecard



Supplier Quality Scorecard

Rolling 12 month assessment- August, 2017

Vendor Name and Number		Paid Purchase Orders last 12 months YTD		Total Number of PO LI		Average Cost Per PO LI		Total $ Received in last year		Cognizant Supplier Quality Engineer	

Factor	Description	Calculation of factor percentage points Final score (C) is calculated by multiplying the possible points for that factor (A) * percent of possible points awarded (B)	Possible Points (A)	Raw Data	% points awarded (B) (Based on Raw Data)	Final SCORE = A*B	Comments
Inspection Acceptance Rate	SB Inspection Acceptance Rate: Provided from SQIP II, this % correctly describes the % of material accepted by Electric Boat. This factor is cumulative for both receipt and source inspection. The Raw data count is equivalent to the calculated percentage points. For example, if Electric Boat has accepted 40 out of 50 inspections for a supplier, their "raw data" would be 80 % and their "% points awarded" would be 80%. As a result of this, their "Final Score" would be 20 (25 X .8).In MRP From the IPSR screen- Quality Rating.	# of Accepts (receipt + source)/ Total Inspections (receipt + Source)	25				
Vendor Responsible Engineering Reports	Vendor Responsible Engineering Reports (ERs) describe issues found post-receipt. The ratio of ERs to total $ received in the last year is used to define the calculated percentage points. For example, if a supplier has delivered $2M worth of material to Electric Boat in the last 12 months, and has 2 ERs ("Raw Data") in the last 12 months, their ratio would be 1 ER: $1M and, according to the table to the right, the "% points awarded" for that supplier would be 90%. This would result in a final score of 23 (25 * .9). * Only ERs that are determined to be "Vendor Responsible" by the Supplier Quality Cognizant Engineer are used. Per procedure, any and all ER's determined to be "Vendor Responsible" are communicated with the vendor.	Ratio $ NC to $2M+ $1M $500K $250K $175K $100K $50K $25K $10K $10K- % PTs 100 90 80 70 60 50 40 30 20 10	25				
Non Conformance VIRs	Non-conformance and Weld Repair VIRs describe issues found pre-receipt of material. These VIRs are filtered by the ones where the Engineer has answered yes to the Certification Question 1.0 Disposition results in this VIR being a Deviation, Waiver, Non-conformance or departure. The ratio of Non-conformance VIRs to total $ purchased in the last year is used to define the calculated percentage points. For example, if a supplier has $2M worth of PAid purchase orders in the last 12 months, and has 2 Non-conformance VIRs ("Raw Data") in the last 12 months, their ratio would be 1 NC: $1M and according to the table to the right, the "% points awarded" for that supplier would be 90%. This would result in a final score of 18 (20 * .9). * Only nonconformance VIRs that are closed are used in this calculation. Nonconformance VIR's that are dispositioned as "Deleted" are not used.	Ratio 1 NC to $2M+ $1M $500K $250K $175K $100K $50K $25K $10K $10K- % PTs 100 90 80 70 60 50 40 30 20 10	20				
SCARs	Supplier Corrective Action Reports (SCARs) Issued by Supplier Quality, SCARs are provided to a supplier when they are found to be deviating from Electric Boat required quality procedures. Once a SCAR is issued, the supplier must issue an acceptable corrective action response to alleviate the ER identified issue.	If zero SCARs are issued, the supplier will receive 100% of the 20 possible points. For every SCAR that is issued, the supplier will lose 10% of their possible points (or 2 points). 10 or more SCARs will result in the supplier receiving 0 points for this factor.	20				
Level of Confidence	Level of Confidence The level of confidence is determined by the cognizant engineer during the Supplier Quality Q1 2101 annual assessment (critical suppliers are assessed quarterly).	Supplier Quality Engineer Scores the Supplier 1-10 (10 equates to the highest level of confidence). For every number ranked less than 10, the Supplier will lose 10% of their possible points.	10				
			100				

In August 2017, Electric Boat deployed use of a new *Supplier Scorecard* to provide a quarterly comprehensive assessment of the quality performance of all critical suppliers. Critical suppliers are those whose products have been determined by Electric Boat and the Navy as critical to the success of submarine performance. Based on a set of strict performance criteria, critical suppliers are given a quarterly score ranging from 0-100%.

The criteria is categorized into the following five areas:

1. Inspection Acceptance Rating
2. Vendor Responsible Non-conformance Engineering Reports (ERs)
3. Vendor Responsible Non-Conformance & Welding Vendor Information Requests (VIRs)
4. Supplier Corrective Action Reports (SCARs)
5. Supplier Quality Engineer Level of Confidence (LOC)

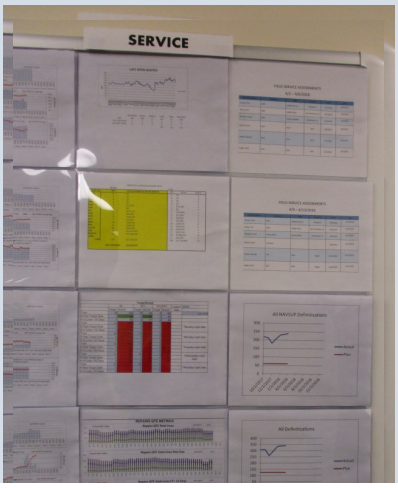
The scorecard score is calculated based on a rolling twelve month period. Scores of 90% and above are deemed above average performance, scores between 75-89% are considered average performance, and scores below 75% are considered below average. Overall, the scorecard provides critical suppliers further insight into improvement areas to increase their quality performance.

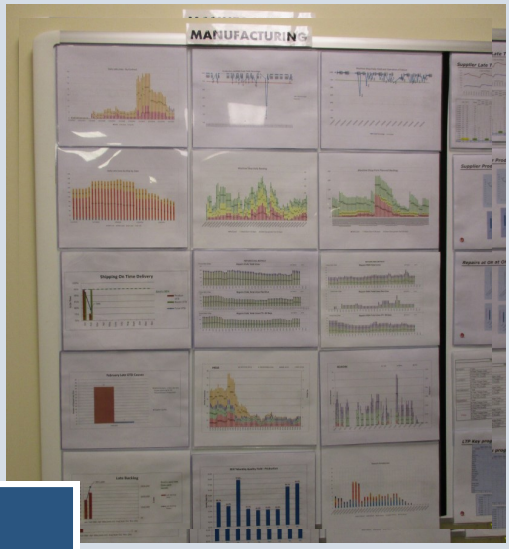
CONTINUOUS IMPROVEMENT

Supplier Continuous Improvement Initiatives

L3 Henschel, Ayer, MA

In 2017, L3 Henschel led a continuous improvement project at their manufacturing facility in Massachusetts. This initiative focused on reprioritizing and streamlining work to better meet both customer needs and company goals. L3 also implemented lean practices such as process controls and visual management throughout their facility to monitor and control processes in the key areas of the business such as supply chain, service, manufacturing, quality and engineering. L3 displays their visual management boards for all employees to easily be able to monitor and identify areas to further improve performance. Visual Management also helps to instill a culture of communication and continuous improvement throughout an organization. As a result of the changes made in the manufacturing facility, L3 benefited from a decrease in overall product backlog and cycle time, as well as the new ability to identify and react quickly to any issues in their core processes.





L3 Henschel's Visual Management Boards

SUPPLIER NEWS

Cybersecurity and Compliance on Your Business Networks

Cybersecurity DFARS for protection of unclassified information are a relatively new set of requirements. These requirements are an important element of an overall cybersecurity initiative. This initiative begins at Presidential directive level and is being driven out to all tiers that work with our critical technologies. Compliance to these new rules can be complicated to work through, especially for small businesses. This article will discuss the first of the five basic requirements of the Cyber Security DFARS (252.204-7012) for the protection of Covered Defense Information (CDI) on all covered contractor information systems.

CDI is defined as any information you receive from Electric Boat marked either For Official Use Only (FOUO) or NOFORN. When processed electronically, it is in scope for this DFARS requirement. Be sure to check your Purchase Order's Terms and Conditions for applicability of this DFARS requirement to your work for EB.

Adequate security means implementing the security controls from NIST SP 800-171. Documenting how you meet the controls is done in a System Security Plan (SSP). NIST provides a sample SSP with the Special Publication (SP) at their publications web site https://csrc.nist.gov/publications/.

What if you don't meet all of these controls? First, some are expected to be not applicable (NA) for all items. Not every system has all the possible information system elements that the NIST SP had to consider. As an example, if your business does not use VOIP phones, then control 3.13.14 would be NA. Simply document that in your security plan. Otherwise, there are two other possible answers for controls not met:

1. ***I don't meet it now but I expect to get there.*** In the SSP, identify the control you do not meet, and develop a Plan of Action and Milestones (POAM). The POAM is used to describe what steps need to be done to become fully compliant and the estimated completion date. Since the intent is to be fully compliant, you must document the condition and track it through completion. The compliance gaps and POAM are not reportable to the DoD. The POAM is maintained as an attachment to the SSP. A template is available as the same location noted above.
2. **I can't meet that control, but I do have other steps I take.** Here an approved waiver is required. A waiver documents the condition, why it can't be met and other factors that mitigate/minimize risk of not being fully compliant. The waiver must be approved by the Authorizing Official. For the Cybersecurity DFARS, only the DoD Chief Information Officer can waive these requirements. Submitting the waiver is done via the Contracting Officer who is the Navy's primary point of contact for a specific contract. As a subcontractor to Electric Boat, your EB buyer is able to provide you this contact information.

In summary, a fundamental element of compliance to the subject DFARS is an enacted SSP, documented POAMs and any approved waivers. The DoD provides additional content on this and other related subjects at the web site https://dodprocurementtoolbox.com/site-pages/new

Any question on this article can be submitted to Electric Boat Industrial Security's Compliance Office at EB.Supplier.Security@gdeb.com.

For additional assistance, suppliers may reach out to the national Procurement Technical Assistance Center: http://www.aptac-us.org/

A quality security product is an important element of a quality delivered product

SUPPLIER NEWS

Program Highlights

VIRGINIA Class Fast Attack Submarine

- The Navy's 30-year Shipbuilding Plan submitted for FY 2019 shows a commitment to a submarine building profile of two attack submarines per year.
- PCU South Dakota (SSN 790) completed float-off at the beginning of February, one of the last major new submarine construction milestones prior to sea trials and delivery.
- PCU Delaware (SSN 791) achieved pressure hull complete at the end of January.

Columbia Class Ballistic Missile Submarine

- The recently released 2018 Nuclear Posture Review reaffirmed the Department of Defense commitment to a minimum of twelve (12) Columbia Class submarines as part of the sea-based leg of the U.S. nuclear triad.
- The third and fourth "tactical" missile tubes have been delivered to Electric Boat's Quonset Point facility for outfitting. Three of the four missiles tubes required for the First Article Quad Pack in the joint United Kingdom and United States Common Missile Compartment (CMC) have now been delivered to General Dynamics Electric Boat. Remember, the first missile tube is headed for the Strategic Weapons Systems Ashore facility at Cape Canaveral, Florida as part of the Columbia Class risk mitigation and certification process.