

# PERISCOPE & FLIGHT DECK

A Newport News Shipbuilding Supplier Publication | January 2018



## *What's Inside:*

- Strategic Sourcing
- Integrated Enterprise Plan (IEP)
- Steam Plant Cleanliness Control
- Hold Point Source Inspection (HPSI)

# Newport News Shipbuilding

## Latest Newport News Shipbuilding Activities

- NNS Appoints John Temple to Vice President of Strategic Sourcing  
<http://newsroom.huntingtoningalls.com/releases/photo-release-newport-news-shipbuilding-appoints-john-temple-to-vice-president-of-strategic-sourcing>
- Aircraft Carrier John F. Kennedy (CVN 79) Reaches 50 Percent Structural Completion  
<http://newsroom.huntingtoningalls.com/releases/aircraft-carrier-jfk-cvn79-lower-stern-lift>
- HII's Proteus Successfully Completes Unmanned Missions Testing at 2017 Advanced Naval Technology Exercise  
<http://newsroom.huntingtoningalls.com/releases/photo-release-hiis-proteus-successfully-completes-unmanned-missions-testing-at-2017-advanced-naval-technology-exercise>
- Huntington Ingalls Industries Announces Don Godwin As New Chief Financial Officer At Newport News Shipbuilding  
<http://newsroom.huntingtoningalls.com/releases/photo-release-huntington-ingalls-industries-announces-don-godwin-as-new-chief-financial-officer-at-newport-news-shipbuilding>
- Huntington Ingalls Industries Celebrates Ceremonial Steel-Cut for Aircraft Carrier Enterprise (CVN 80) at Newport News Shipbuilding  
<http://newsroom.huntingtoningalls.com/releases/photo-release-huntington-ingalls-industries-celebrates-ceremonial-steel-cut-for-aircraft-carrier-enterprise-cvn-80-at-newport-news-shipbuilding>
- Huntington Ingalls Industries Awarded \$2.8 Billion Contract To Execute USS George Washington (CVN 73) Refueling and Complex Overhaul  
<http://newsroom.huntingtoningalls.com/releases/uss-george-washington-cvn73-rcoh-contract>



**Cover Photo:** The Aircraft Carrier USS Abraham Lincoln CVN 72 on sea trials post RCOH. Photo by Matt Hildreth. May 9, 2017

# Supply Chain Management

## Strategic Sourcing/Supplier Development (Kimberlee Humphrey)

A few of the primary responsibilities of the Strategic Sourcing & Supplier Development office are marketplace intelligence, supply base/supplier development, continuous improvement and lean initiatives.

What is Strategic Sourcing? Strategic Sourcing is an approach to supply chain management that formalizes the way information is gathered and used so that companies can leverage consolidated purchasing power to find the best possible values in the marketplace. It is the collaborative and structured process of critically analyzing spending and using this information to make important business decisions. The NNS Strategic Sourcing office analyzes spending, market position, market knowledge and capabilities of the supply base. We do this by using a comprehensive market analysis/intelligence approach. This approach helps optimize performance, increase achievement of socio-economic acquisition goals, evaluate total life-cycle management costs and improve supplier access to business opportunities. Strategic Sourcing is also responsible for Supplier Development. Supplier Development is the process of collaborating with suppliers to improve processes and product manufacturing capabilities. We incorporate various assessment tools and LEAN manufacturing techniques to eliminate waste in the value chain.

The goal is to partner with our supply base to help drive innovation and improvements that benefit both organizations. We ultimately want to be a partner in the innovation life cycle. We benchmark best practices with professional organizations such as the Association for Manufacturing Excellence (AME) and other world class organizations.

You will hear more about NNS Strategic Sourcing & Supplier Development opportunities in future issues. To learn more, contact Kim Humphrey at [Kimberlee.a.humphrey@hii-nns.com](mailto:Kimberlee.a.humphrey@hii-nns.com).



*Marine One and flight support landing on the flight deck of the Aircraft Carrier GERALD R FORD CVN 78. Photo by Matt Hildreth.*

# Supply Chain Management (Cont.)

## **Integrated Enterprise Plan** *(Kelly MacDonald)*

The Integrated Enterprise Plan (IEP) was developed to assess the ability of the naval nuclear supply chain to support the increased demand in the shipbuilding industry, fueled by the introduction of the Columbia ballistic missile submarine program, which is scheduled to begin replacing the Ohio Class in 2031. The Navy formalized the IEP in response to a need to formally assess the health of the shrinking industrial base. This is the first time that the shipbuilding industrial base would be asked to support two concurrent submarine programs - the fast attack submarines (Virginia Class) and ballistic missile submarines (Columbia Class), since the late 70s and 80s when the industrial base supported the 688 and Trident construction programs.

The goals of the IEP Program, as identified in Rev D of the IEP, are threefold: 1) Ensure on-time delivery of the Columbia Program without compromising other programs; 2) Reduce the cost of purchased material for the Virginia, Ford and Columbia Programs; 3) Sustain a cost efficient and effective manufacturing base.

The combined approach for implementation includes both General Dynamics Electric Boat (EB) and Newport News Shipbuilding (NNS) working collaboratively to assess, communicate and develop procurement strategies that will ensure the

overall health and sustainability of the shipbuilding industrial base. Cross-program procurement strategies are being developed to coordinate activities within the supply base to achieve the best value while maintaining focused priority on the Columbia Program and supporting the other nuclear shipbuilding platforms.

The focus of the IEP for 2017 has been on conducting supplier readiness assessments of over 300 EB and NNS suppliers. The assessments included evaluation in the areas of business stability, existing capacity, future capacity, supply chain, production/facilities/capacity and schedule performance. The assessments recognized specific risk areas. Each recognized risk area required the development and implementation of a supplier specific plan, mitigating the identified risks. The specific action plans were completed at the end of December.

**(Continued on Page 7)**



*Construction on the submarine Washington (SSN 787) progresses in the Modular Outfitting Facility. Photo by Chris Oxley*

# Quality

## Steam Plant Cleanliness Controls (Craig Smith)

The August 2015 “Periscope and Flight Deck” edition discussed the basics of Steam Plant Cleanliness Controls (SPCC) and their importance to Newport News Shipbuilding (NNS). As pointed out, SPCC includes ensuring detrimental & foreign material, along with corrosive products, do not enter the ship’s steam plant. Also, NNS purchase orders pass down SPCC requirements with coded notes C1090, IC079, LI113 and Electric Boat standard clauses 16-16 & 12-41. NNS places great emphasis on the importance of these requirements to prevent corrosion in steam plant systems and ensure the safety & reliability of US Navy vessels.

A key element to success in meeting NNS’ SPCC requirements is implementation of the cleanliness controls throughout the shop and manufacturing areas. Manufacturing routers, travelers and other work planning documents should contain appropriate hold points for verification of SPCC requirements. As part of the internal flow down of NNS requirements, work planning documents should contain adequate instruction to shop personnel on SPCC aspects. Additionally, suppliers are required to verify that any subcontractor used in performance of SPCC work satisfy the same requirement.

Where appropriate, quality personnel should assist with inspections to assure that cleanliness requirements are met. The “Build Clean” philosophy should be integrated into all practices and should include protecting exposed internal surfaces and component piece parts from shop atmosphere contamination (such as grinding and welding). The use of temporary sealing, covers, drapes and other means should be considered in supporting the “Build Clean” philosophy. Many components (such as valves & pumps) have internal parts and surfaces requiring steam plant clean aspects that cannot be verified after final assembly.

Final inspection needs to be planned and conducted to ensure the SPCC requirements have been met prior to shipment to NNS. As outlined in

the purchase order coded notes and/or specifications, a visual inspection needs to be performed to the maximum extent practical through all hardware openings. The cleanliness acceptance criteria outlined in the NNS purchase order specifications and/or coded notes must be verified. After satisfactory final inspection, cleanliness protection devices, sealant tape and status tape required by the NNS contract must be applied.

Important online training modules that summarize the NNS SPCC requirements have been developed and placed on the Supplier Training website. These modules are a valuable resource in helping to understand SPCC and contribute in being successful in providing such parts to NNS. The training consists of two modules: “Steam Plant Cleanliness Control (SPCC) – Purchase Order Requirements” and “Steam Plant Cleanliness and the use of Covers, Caps, Seals (shop floor personnel.)” The link for the Supplier Training webpage can be found at:

[http://supplier.huntingtoningalls.com/sourcing/sup\\_training.html](http://supplier.huntingtoningalls.com/sourcing/sup_training.html)

As always, thank you for your commitment to quality and excellence in ensuring the US Navy has the best warfighting ships and submarines in the world!



*Pump testing in NN third shift. Photo by Rick Thompson.*

# Engineering

## Hold Point Source Inspection (HPSI) (Craig Garland)

Hold point - an in-process "pause" in the manufacturing process to verify material attributes or subsequent process steps meet requirements before proceeding. Hold points are used by NNS to reduce the risk of a manufacturing nonconformance due to complex process(es) or critical characteristic(s) for the part being manufactured.

An effective hold point has three parts: the required action, the NNS action party (department), and the point in the manufacturing process for accomplishing the required action. The hold point is written to require that an action be performed by the supplier and approved by the action party prior to moving past a defined (critical) point in the manufacturing process.

For example, NNS invokes a piece-part inspection be performed and approved by NNS Supplier Inspection prior to assembly. The hold point will be written in a hold point document and linked to the part as a spec-mod document, so that the details appear in the purchase order. An example of what would be displayed appears below.

```
Rev. 0

HOLD POINT SOURCE INSPECTIONS FOR NPN H7932502-A1.

1. VERIFY DIMENSIONAL INSPECTION OF PIECE PARTS:
   CYLINDER PN H7932502-46
   OIL HEAD PN H7932502-27
   AIR HEAD PN H7932502-28
   PISTON TAIL ROD PN H7932502-2
   RETAINING RING PN H7932502-6
   PISTON PN H7932502-3
   SPLIT RINGS PN H7932502-29

PROVIDE WRITTEN PROOF OF HOLD POINT COMPLETION
I.E. SIGN-OFF
ON TRAVELER/ROUTER, NNS PROVIDED DOCUMENTATION,
(ETC.)

DEPARTMENT: SUPPLIER INSPECTION
WHEN: PRIOR TO ASSEMBLY
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These part numbers invoke coded note S5050 and/or standard clause 37-8 series (37-8A, 37-8B, ...) to provide additional information and directions to the supplier. While NNS is working to standardize all parts with a common hold point process, older parts may still have the hold point required action written into the supplemental text of the part description. If the hold point is unclear in regard to required action or time for accomplishing, the supplier should submit a Vendor Quote (VQ) before the purchase order placement or a Vendor Information Request (VIR) after the purchase order placement for clarification.

When attempting to schedule a hold point, suppliers should communicate estimated completion dates to the Buyer when the manufacturing plan is sufficiently mature, so that NNS resources can be appropriately aligned. For required actions where the action department is other than Supplier Inspection, suppliers should submit the documents and request on-site visits through their Buyer. For hold points with Supplier Inspection as the action department, suppliers should submit a request for source inspection using the attached link [<http://supplier.huntingtoningalls.com/forms/sir.aspx>], noting that the request is for a hold point action.

When providing requested documents or requesting NNS to complete a hold point action, suppliers need to clearly identify the applicable Purchase Order(s), Line Item(s) and hold point(s) for which the NNS approval action is being requested. This is especially important with Virginia Class Submarine (VCS) Block Orders. Additionally, suppliers should incorporate signoffs of the hold point actions into the travelers/routers for the part or request NNS acceptance documentation at the time of completing the hold point action. The Objective Quality Evidence (OQE) for completing or waiving each hold point should be available for review by NNS Source Inspectors prior to shipment.

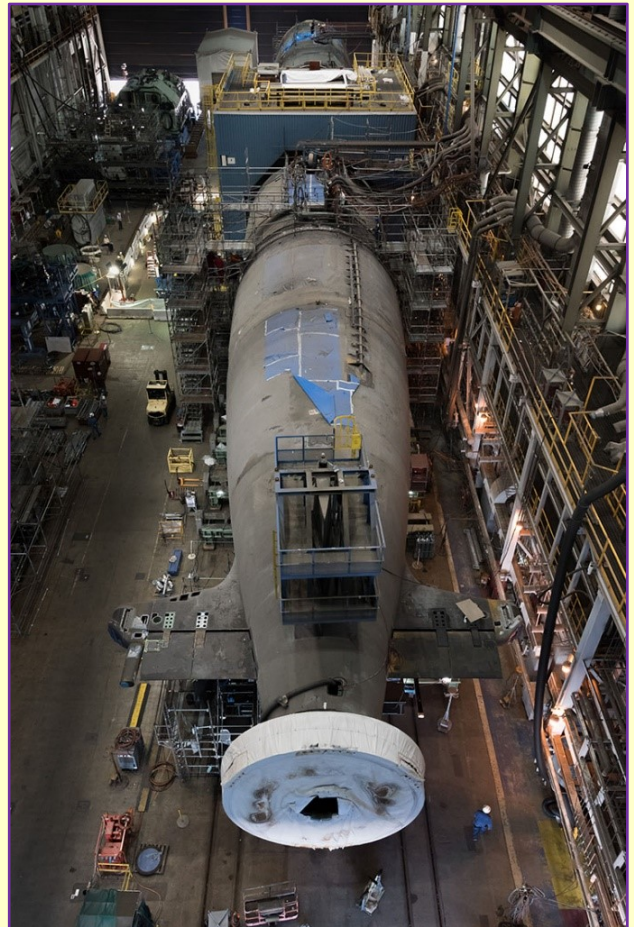
After determining that a supplier's manufacturing process satisfies all requirements for which the hold point was created, NNS Engineering "may" approve waiving the hold point for future Purchase Order Line Item(s). If a waiver is approved, the Buyer will forward written notification using NN Form 10036 to the supplier for their records.

# Continued

## Integrated Enterprise Plan continued from Page 4

The IEP focus area for 2018 is to expand these assessments to examine the sub-tier shipbuilding supply base. Additionally, EB and NNS will continue to work together to develop cross-program procurement strategies to optimize cost and manufacturing efficiencies in the supply base. The objective of the procurement strategies is to support all nuclear shipbuilding program schedule requirements, while maintaining a constant flow in the material value chain and reducing overall program costs.

Suppliers should be cognizant that both EB and NNS are working together on these industrial base assessments. EB and NNS will be outlining the assessment structure and expectations working with the suppliers. If risk areas are identified, additional tools may be deployed for further evaluation depending on the severity of risk. The focus of these inquiries is to ensure the supply base is able to support the additional Columbia Program requirements and assist EB and NNS in developing a procurement strategy that will optimize work flow in your facility and capitalize on efficiencies. The feedback that is provided by each supplier is critical to the IEP Program success and the Navy's overall Shipbuilding Plan.



*Submarine DELAWARE SSN791 under construction in the MOF. Photo by Matt Hildreth*

### **Supplier Engineering Advocate (SEA)**

This newsletter was put together by the members of the SEA group with the help of various members from around Newport News Shipbuilding providing articles from their area(s) of expertise. The SEA group is a dedicated team that coordinates with suppliers and NNS departments to resolve upstream material engineering issues to positively impact the Material Value Stream. Members of the SEA team are full-time professionals from various technical backgrounds that address a wide variety of material engineering challenges. You may contact the SEA group at [SupplEngAdvocate@hii-nns.com](mailto:SupplEngAdvocate@hii-nns.com) or on the link provided below. <http://supplier.huntingtoningalls.com/sourcing/sea.html>



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