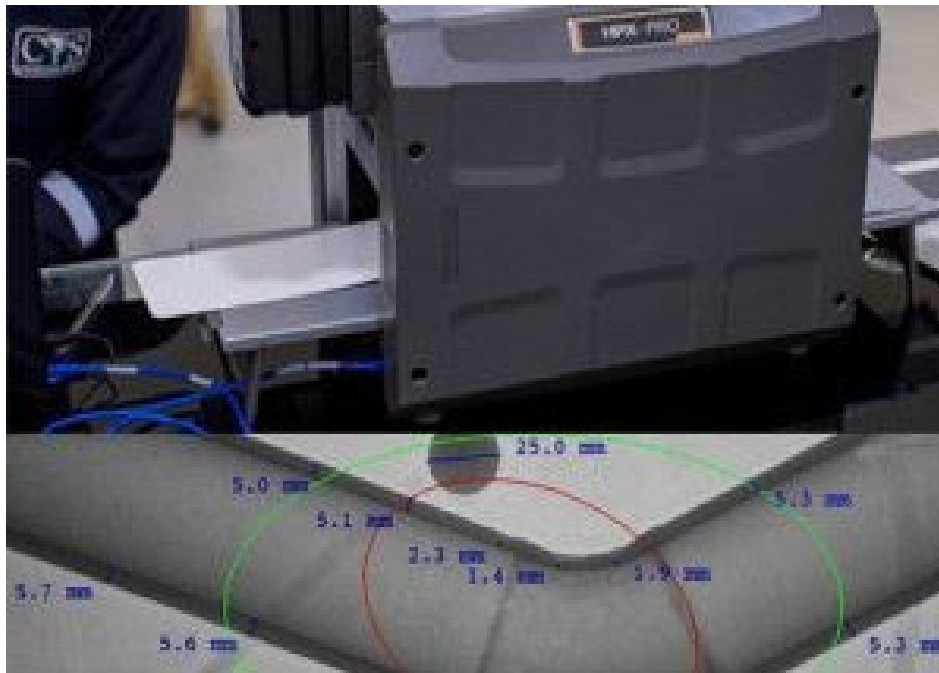


FINAL YEARLY EDITION NEWSLETTER

Computed Radiography Comes To NNS

Newport News O51 Supplier Development, in conjunction with E37 Weld Engineering, would like to inform the Naval Shipbuilding Supply Base that computed radiography (CR) nondestructive testing has been approved through NAVSEA 05 and that subsequently, suppliers will be able to submit CR procedures to their primes, such as EB and NNS, for approval of their CR programs. A side by side traditional film and CR study will be required to prove supplier capabilities. The attached documents provide specification of training and testing requirements for Level I, II and III personnel.

By Randall Hall and Jeremiah Penney



ATTENTION: Our Supplier website has been revamped and moved here:

<https://hii.com/suppliers/newport-news-suppliers/>

Final Yearly Edition

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Radiography



Remembering Thelma Mothershed Wair, one of the Little Rock Nine of 1957 & one of the ship's sponsors for *Virginia*-class Submarine *Arkansas* (SSN 800) who passed away at age 83 on October 19, 2024.



DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY REFER TO
4855
Ser 05P/191
28 Jun 24

From: Commander, Naval Sea Systems Command (SEA 05P2)
To: Distribution

Subj: REQUIREMENTS FOR COMPUTED RADIOGRAPHY AS AN ALTERNATIVE TO FILM RADIOGRAPHY FOR WELDS

Ref: (a) NAVSEA T9074-AS-GIB-010/271, Rev. 1 of 11 Sep 14, Requirements for Nondestructive Testing Methods
(b) NAVSEA Ltr 4855 Ser 05P/117 of 27 Mar 18
(c) NAVSEA 250-1500-1 Rev. 19 of August 2020, Welding Standard
(d) MIL-STD-2132F(SH) of 27 Jun 22, Nondestructive Examination Requirements for Special Applications
(e) NAVSEA 392-0775 Rev. 15 of May 2022, Information Notes on Welding and Nondestructive Testing

Encl: (1) NAVSEA Requirements for Computed Radiography of Welds using T9074-AS-GIB-010/271 Applications

1. **Purpose.** The purpose of this letter is to authorize the use of Computed Radiography (CR) weld inspection methods as an alternative to film radiography, per reference (a), in accordance with the requirements provided in Enclosure (1).
2. **Background.** Reference (b) provided direction for an implementation trial phase and review of CR process and procedures prior to final Naval Sea Systems Command (NAVSEA) approval. The trial phase for developers and initial users of the draft CR requirements included in enclosure (1) of reference (b) was to assist with their assessment of implementation at their individual activities. The reference (b) trial test period also provided an opportunity to identify technical modifications needed for reference (a) and reference (b) enclosure (1) based on field experience.
3. **Discussion**
 - a. Enclosure (1) has incorporated feedback obtained from the reference (b) trial period. The CR requirements are included in enclosure (1) of this letter until incorporation into the next reference (a) revision. End users may use CR in lieu of film radiography per enclosure (1).
 - b. Government and shipbuilder oversight by activities such as Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP), Regional Maintenance Centers (RMC), public shipyards, commercial shipyards, etc. is required to support the implementation of CR.
 - c. CR does not change acceptance criteria, which remains the same for CR and film radiography.
4. **NAVSEA Action.** NAVSEA approves enclosure (1) for the use of CR as an alternative to film radiography for reference (a) applications subject to the following limitations.
 - a. Approval of CR programs and inspection procedures shall be in accordance with enclosure (1), sections 1.1.4 and 1.1.5. Enclosure (1) is intended for use on weldments; however, CR procedures for castings may be submitted to NAVSEA for approval following similar guidelines.
 - b. If alternate certification requirements are invoked with reference (c) or reference (d), paragraph 1.6.5 in revision 1 of reference (a) shall be used.

[Radiography requirements for computed radiography as an Alternative to Film Radiography for Welds](#)

DICONDE SPECIFICATIONS OF NANOARK X-RAY DIGITIZATION SYSTEM

The NanoArk X-RAY Digitization system is generally described as a process control and tracking system to enable conversion of physical / hard copy format NDE (e.g. X-Ray) data or proprietary format NDE data into DICONDE compatible electronic data with specified DICONDE metadata captured. This specific embodiment of the system relates to the digitization of analog X-Rays in NDE.

DICONDE DEFINITION FOR DIGITIZED ANALOG X-RAYS

Digital Imaging and Communications in Non-Destructive Engineering (DICONDE) is the standard that defines digital images in Non-Destructive Engineering/Testing (NDE/NDT) especially with respect to organization of image data and associated metadata. While methodologies for direct digitization such as Digital Radiography (DR) and Computer Radiography (CR) require many DICONDE metadata tags to be available to be populated with metadata, digital images created by digitizing analog X-Ray films require far fewer tags to be populated. Furthermore, since the NanoArk Digitization System also captures the reader sheet accompanying the analog film (radiograph) as an object, it becomes unnecessary to capture all the information in the reader sheet into DICONDE tags (private use tags).

COMPONENT LEVEL METADATA TAGS

The component level metadata tags that need to be available and populated are depicted in the following table. Those tags with “tag type” 1 need to be available and populated, those tags with “tag type” 2 need to be available, but not necessarily populated, and those tags with “tag type” 3 need not necessarily be made available, i.e. are optional.

The total set of concerned tags are categorized into three groups, namely “Content Mandatory” meaning that the tag must exist and must contain data, “Mandatory Exist”, meaning that the tag must exist, but need not necessarily contain data, and “Optional” meaning that the tag need not necessarily, exist and even if it exists, it need not necessarily be populated with data. This classification has been set forth by NNL/NNPP (Naval Nuclear Propulsion Program).

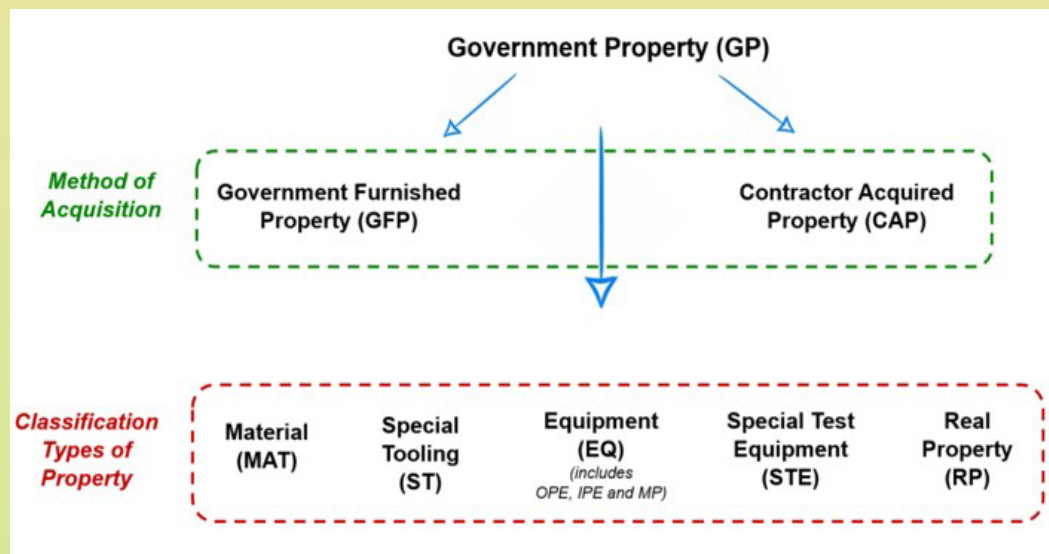
Tag ID	Tag Name	Data Type	Tag Type	Data Source	Tag Group	DVTk Verifiable	Comments
0008,0016	SOP ClassUID	UI	1	System Generated	Content Mandatory	Y	

Radiography for XRay Digitization Diconde

Government Property in the Possession of Suppliers

As a supplier you may have Government Property accountable to an NNS Purchase Order. FAR 52.245-1 requires NNS to properly administer subcontracts and perform periodic reviews to determine the adequacy of the Supplier's property management system.

Annually, NNS requests applicable Suppliers to complete an NN9056, *Annual Supplier Property Management Risk Assessment*. In addition, if the Supplier has Government Property accountable to a NNS Purchase Order(s), they must complete and submit a NN9170, *Physical Inventory of Government Property*. The forms are available on the [HII NNS Suppliers website](#) and the information submitted in these forms provides insight into the Suppliers Property Management System policies, procedures, and practices. In addition, this information allows NNS to assess risk and determine if additional surveillance is required.



Government Property:

- Property owned or leased by the Government.
- Includes Government (or NNS) Furnished and Supplier Acquired Property.

Government Furnished Property:

- Property furnished by the Government and made available to the Supplier.

Contractor Acquired Property:

- Property acquired by NNS and made available to the Supplier.
- Property acquired by the Supplier.

Material (Mat):

- Items consumed or expended during the performance of a contract.
- Items that lose their individual identity through incorporation into an end item.
- Completed products that are stored as “ship in place” material until shipped to NNS for consumption.

Special Tooling (ST):

- Jigs, dies, fixtures, molds, patterns, taps, gauges, and components of these items.
- Foundations and similar improvements necessary for installing ST.
- Specialized nature and their use is limited to performance of particular services.

Government Property in the Possession of Suppliers, Cont.

Special Test Equipment (STE):

- Integrated test units designed to accomplish special purpose testing.
- Assemblies, foundations, and similar improvements necessary for installing STE.
- Standard items that are interconnected to become a new functional entity for special testing purposes.

Equipment (EQ):

- Tangible items that are functionally complete for intended purpose.
- Support equipment needed for contract performance.

In an effort to help Suppliers complete the NN9056 and NN9170 forms, examples of on-hand Government Property include:

- Equipment, Special Tooling, and Special Test Equipment would be reported as on-hand. If a supplier is fabricating one of these items, it is considered work in progress (WIP) and would not be reported as on-hand until fabrication is complete.
- Items removed from a vessel and sent to the Supplier for overhaul and refurbishment. Items would be reported as on-hand.
- Completed products that are stored as “Ship in Place” material would be reported as on-hand. Material that is work in progress (WIP) would not be reported as on-hand until fabrication is complete.
- Raw stock or other materials that are work in progress (WIP) would not be reported as on-hand.

NNS Government Property looks forward to working with all applicable Suppliers. If you have any questions about Government Property accountable to a NNS Purchase Order please email

GovtProperty@hii-nns.com.

ATDM Program Announces Graduation & Specifics of Training

The current cohort for ATDM announced their graduates on October 25th with the following number of students available for hire:

Additive Manufacturing – 4
CNC Machining – 27
Non-Destructive Testing – 22
Welding – 37

All ATDM program areas are 16 weeks with 600+ hours of instruction. Each individual program area is designed to equip individuals with the foundational skills needed to make an immediate impact in the SIB workforce. Reducing time-to-talent is the main objective; providing workers to industry that can quickly adapt to company-specific practices and procedures.

Please contact Karen Hardy, Assistant Director, Career Services at 434-766-6621 or karen.hardy@ialr.org.

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Integrated Enterprise Plan (IEP) Supplier Readiness

IEP is an initiative funded by the U.S. Navy to strengthen the shipbuilding industrial supply base by providing oversight from shipbuilders to analyze and reduce risk, increase affordability, and reduce schedule constraints as an enterprise. The NNS team works closely with Electric Boat (EB) on all IEP efforts.

Supplier Readiness

Suppliers identified as critical to CLB, VCS and CVN (new construction) are assessed annually to evaluate their capacity, capability and readiness to meet current and future Shipbuilding demand.

What is a Critical Supplier?

The list of suppliers is refreshed annually and criteria may include, but limited to:

- SQA Critical Supplier
- Critical Complex Components
- High Annual Spend / Volume
- Single / Sole Source
- Key / Construction Critical Path Materials
- Sequence Critical Material
- Level 1 Material
- SUBSAFE Material
- Long Lead Time Material
- Nuclear Material
- Strategic Scouring Concern
- Cross-Dependency (Sub-tier)

IEP Supplier Readiness Assessments

Suppliers are given an opportunity to self-assess.

Suppliers are evaluated and scored as green, yellow or red in each of the following business categories:

- Business Stability
- Existing / Future Human Resource
- Supply Chain
- Production / Facility / Capability
- Schedule
- Supplier Quality Score

NNS and EB work collaboratively to assess shared suppliers. The Shipbuilders assess non-shared suppliers independently.

Integrated Enterprise Plan (IEP) Supplier Readiness, cont.

Scoring

- Green – Supplier is prepared for current and future demand.
- Yellow – Supplier is meeting current demand and has prepared plans for future demand.
- Red – Supplier is challenged to meet current demand.

Plan of Action & Milestone (POA&M) Development

POA&Ms address specific supplier risks with mitigation steps for all areas of opportunity identified during the Supplier's Readiness Assessment.

All suppliers assessed as red or yellow receive a POA&M.

POA&Ms are developed by the Readiness Scoring Team and the identified risks are mitigated by the Supplier Development team, Buyer, and Project Manager.

Readiness Assessment & POA&M Results

The results of each Readiness Assessment period as well as POA&M status is reported to the Government at the end of each annual Wave.

Wave 7 of the IEP Supplier Readiness program will conclude on 12/31/2024. Over the course of this wave we have seen an uptick in supplier participation including self-assessments, action item closures and overall communication. As shipbuilders, we work closely with our suppliers to cultivate a positive working relationship built on transparency and productivity. Suppliers and shipbuilders are both working diligently to drive Wave 7 to completion as Wave 8 will commence in January 2025. Wave 8 is generally the same concept as the previous waves, but with a few major differences:

1. The shipbuilders have engaged Blue Forge Alliance (BFA) to distribute and manage the Supplier Survey this year. The Supplier Survey is the same concept as the Self Assessment, but requests significantly more information than requested before in order for the shipbuilders to better assess the suppliers' capability to support our programs. Rather than filling out a spreadsheet and returning it to the shipbuilders, the Survey will be an online tool.
2. The Assessment has been reworked by the shipbuilders based on feedback received over the past several waves to also better assess the suppliers' capability to support our programs. The Survey is a vital part of supporting the shipbuilders' Assessment process.
3. POAM development has been modified to aim at the few items that will truly "move the needle" of suppliers' performance and capabilities. This replaces a very prescriptive process that sometimes resulted in dozens of action items being asked of suppliers.



Are You Aware?

The Department of Justice (DOJ) launched the **Civil Cyber-Fraud Initiative** in 2021 utilizing the False Claims Act (FCA) to establish accountability measures for contractors regarding any misrepresentation relevant to their cybersecurity practices. The initiative has already led to significant case wins, with this latest instance of DOJ joining the whistleblower lawsuit against Georgia Tech under the FCA for submitting false cybersecurity assessment scores in order to acquire a Department of Defense (DoD) contract.

As the U.S. Government and the DoD continue to mature cybersecurity requirements, Newport News Shipbuilding (NNS) remains committed to protecting sensitive information that is entrusted to us, most commonly referred to as **Federal Contract Information (FCI)** and **Controlled Unclassified information (CUI)**. This commitment to protection extends to our suppliers with whom we share this type of information. As a reminder, here are three Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulations Supplement (DFARS) clauses which are referenced in the Appendix A- DoD Contracts; also commonly referred to as Terms and Conditions:

FAR 52.204-21, Basic Safeguarding of Covered Contractor Information Systems, is a prime contract mandatory flow-down to our subcontractors that defines and prescribes the basic safeguarding requirements and procedures for covered contractor information systems that process, store, or transmit FCI. If your company has an HII purchase order supporting a DoD prime contract, it contains (at a minimum) FCI and subjects your company to the requirements of the 15 Basic Safeguarding Controls identified within the clause.

DFARS 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting: A mandatory flow-down included in the prime contract to our subcontractors to provide adequate security on all covered contractor information systems where Covered Defense Information (CDI) or DoD CUI is transmitted electronically to the subcontractor. The clause contains a number of minimum security protections as well as requirements for the reporting of cybersecurity incidents.

DFARS 252.204-7020, National Institute of Standards and Technology Special Publication (NIST SP) 800-171 DoD Assessment Requirements: A prime contract mandatory flow-down to our subcontractors which contains requirements for the protection of DoD CUI that is applicable to suppliers at every level even before the award during the RFP phase. As you are aware, DFARS 252.204-7020 requires that prior to awarding a contract that involves DoD CUI, the contractor and all of its subcontractors that will handle CUI must have a current assessment score in the DoD Supplier Performance Risk System (SPRS). DFARS 252.204-7020 are required flow-downs in all requests for proposals, subcontracts, purchase orders, or other contractual instruments, including for DoD-commercial items.

NNS has recently launched a website with additional resources related to Cybersecurity requirements, found at <https://hii.com/cyber>.



Supplier News Articles Needed for Next Newsletter

Please provide your articles to E-mail address:

Aronya.Fuller@hii-nns.com