DCMA NSEO MANUFACTURING PROCESS REVIEW (MPR) CHECKLIST #17

FINAL INSPECTION

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| **SUPPLIER & CAGE:** |  |
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| **LOCATION:** |  |
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**Program Type:**

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|  | Level I/SUSBAFE (LI/SS) |  | Navy Propulsion Program (NPP) |  | Deep Submergence Systems/Scope of Certification Program (DSS-SOC) |
|  | Nuclear Plant Material (NPM) |  | Naval Nuclear Propulsion Program (NNPP) |  | Aircraft Launch & Recovery Equipment (ALRE) |
|  | Fly By Wire Ships Control Systems (FBWSCS) |  | Ships Critical Safety Items (SCSIs) |  | Other: |

**Contractual Requirement(s) for this Process:**

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**Supplier Procedure Number(s), Title(s) & Revision Level(s)/Date(s):**

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| **Process Reviewed By:** |  |
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| **Date(s) of Review:** |  |
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**Process Concerns and Guidance:**

* Inspection and test results and accompanying documentation incorrect, incomplete or missing
* Inspections and tests not performed or performed incorrectly
* Dimensional inspection from incorrect drawing revision
* Incorrect dimensions specifically on pitch, major and minor diameters and also damage on internal and external screw threads, especially when MIL-DTL-1222J requirements are specified
* Visual inspection and cleanliness of items
* Lot sample sizes incorrect
* Contractor personnel may not be properly trained to take accurate measurements.
* Some contractors may rely on the QAR’s inspection records and results to ensure dimensional compliance and justification to deliver products to the Government.
* Damaged parts received by customer due to improper packaging, packing and preservation

**A**. **MANPOWER:**

1. Are the personnel performing the inspection, testing and quality assurance functions of the appropriate skill/experience level and/or properly trained/certified to produce conforming product? What are the requirements?

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1. Record all processing operations observed (include type and specification, where applicable) and the corresponding operators’ names. Are any personnel certifications expired and are they still working in the process?

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1. Verify QA/QC proficiency in measuring/test performance. Record names and tests or measurements witnessed, and equipment used.

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1. Are training records available (review sample) and are they accurate and complete?

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1. Are the credentials of the training/certification official in accordance with specification requirements? ***What are the requirements?***

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1. Is there a system in place for remedial training when errors occur?

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**B. MATERIALS**:

1. For Level I material, is the product controlled and traceable throughout the process? Is a traceability list provided for internal Level 1 components which are not accessible for inspection after assembly? (NAV17-9A)

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1. Are certifications for raw materials used in the process reviewed for acceptance and maintained on file for review?

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1. Do the raw materials comply with contract/specification and/or supplier-imposed technical requirements, including the prohibition of reclaimed material as may be required? ***What were the materials reviewed?***

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1. Are there controls to ensure conforming material is consistently used in the process?

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1. Was the material's integrity compromised by further processes and/or practices? ***If so, how?***

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**C. MACHINERY**:

1. Is **inspection and testing equipment** of the required adequacy, accuracy, precision, and range to assure supplies produced comply with specifications and drawings? *What Items were sampled and were they part of the supplier’s calibration program and within the calibration/check cycle?*

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1. Does equipment (to include fixtures, jigs, and software [ATE]), requiring qualification or certification approval, have contractual approval for use? *For software, was the correct software in use? What program(s) and revision level(s)/date(s) was in use?*

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1. Is Government owned equipment adequately protected/maintained in accordance with a documented process?

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**D**. **METHODS**:

1. Does the supplier have a documented and established inspection system, and are inspection instructions readily available and utilized by personnel? Record QA/QC Manual Number and Date Approved.

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1. Do the supplier’s procedures state inspection frequencies, inspection methods, and accept/reject criteria, and are they clearly documented and understood by personnel? (NAV17-3)

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1. Review and identify a sample of final inspections being performed by supplier personnel in accordance with procedures, and record number of samples and the result of the review.

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1. Is there an over check program in effect to confirm worker's or inspector's results on a sampling basis and is it known to exist by the workers/inspectors?

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1. Do the supplier’s procedures ensure that contracts, work instructions, drawings/specifications used are readily available at the inspection station to personnel during final inspection and are they of the correct revisions for their intended function/purpose, where applicable? (NAV17-2/2A/B)

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1. Are inspection records and data compiled and maintained to clearly identify the results of the inspections and tests performed and include traceability back to the procedure, lot/heat numbers, instruments used, personnel who performed each inspection and test, and the finished product inspected? Are these records readily available? (NAV17-4/4A)

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1. Does a procedure exist for the rework of any final inspected product requiring rework?

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1. Are records documented satisfactorily? In ink utilizing "line thru", initial and date procedures?

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1. Is material/product, which has been through the final inspection process, positively controlled, traceable, and have the final inspections performed been documented to provide a positive indication of the inspection status of the material (e.g. individual inspected, operation sign-off, inspection stamped/initialed/signed accepted or rejected)? (NAV17-6)

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1. Is the product adequately identified with the proper documentation and certifications to provide clear material traceability throughout the products’ processing and does the product match the documentation at the time of packaging and shipment? Are all required documents and certifications required by the contract verified at final inspection? (NAV17-9B)

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1. Are changes to methods (instructions) controlled and translated adequately and timely to affected personnel?

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1. Are there adequate methods of segregating accepted and rejected material in use? (e.g. materials awaiting inspection, are they identified and segregated from materials which have been accepted or rejected? **Describe.**

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1. Is there supplier data available for analysis that can substantiate the effectiveness or ineffectiveness of the final inspection process? ***If available, what data was reviewed, and what does the data indicate?***

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1. Are precautions in place to prevent damage and/or contamination to product during and in between final inspection processes and packaging?

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1. Is the supplier’s final inspection comprehensive enough and adequate to effectively inspect for product conformance to contract requirements? (NAV17-5)

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1. Are work instructions, final inspection procedures, routers/travelers, etc. being used current, adequate, clear, concise and up to date (latest revision) to allow only contractually conforming supplies to be delivered to the Government? ***What documents (identifying number & rev) were reviewed?*** Do routers/travelers contain a hold point for final inspection? (NAV17-1)

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1. Is adequate care and protection taken to prevent damage during transport of supplies within the facility?

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1. Are Government and/or Customer source inspection performed and acceptance for release for shipment obtained, when required? (NAV17-8)

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1. Do procedures and practices prevent the release for shipment of products prior to final acceptance? (NAV17-7)

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1. Do procedures provide for the verification and preservation of cleanliness before packaging?

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1. Is adequate control provided to assure that contractual packaging, marking and documentation is in accordance with applicable requirements such as nameplates, traceability markings, etc. and are these verified during final inspection? (NAV17-9)

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1. Does the Contractor's operational system(s) detect and avoid counterfeit parts and suspect counterfeit parts? Are processes/procedures acceptable?

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1. Is adequate protection taken to prevent damage of supplies in shipment?

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1. Does the supplier have an adequate process in place to sufficiently handle parts to prevent damage at the prime and during shipment to a packaging house, if applicable?

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**E.** **ENVIRONMENT**:

1. Is the process conducted under controlled environmental conditions (clean room, humidity/temperature, etc.) as required by contractual and/or supplier-imposed technical requirements? ***What are the environmental conditions and are they monitored (charts, gages, etc., within calibration)?***

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1. Does the supplier observe ESD practices, if applicable?

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1. Is safety equipment available and in use, if needed? ***What are the safety requirements for this process?***

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**F. PRODUCT EXAMINATION:**

***The QAR must perform a product examination in order to verify the output of the process being reviewed and document the results below.***

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| Date(s) Conducted: |  |
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| Product Examination Performed By: |  |
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| Contract Number(s): |  |
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| Part Number(s)/Serial number(s): |  |
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| Part Nomenclature(s): |  |
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| Supplier Personnel Contacted and Titles: |  |
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| Drawing Number & Revision: |  |
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| Lot Size and Sample Size: |  |

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| Characteristics Examined: | # Observations |
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1. Identify the inspection methods (W, I, T, V) used to verify conformance with procedures and standards:

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| **W** |  |  | **I** |  |  | **T** |  |  | **V** |  |

**PE Comments/Concerns**

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| **Overall MPR Results:** | **SATISFACTORY** |  | **UNSATISFACTORY** |  |

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| **Corrective Action Generated?** | **No** |  |  | **Yes** |  |  | **CAR#** |  |

FOLLOW-UP ACTION REQUIRED?

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**SUMMARY/NOTES/COMMENTS/CONCERNS**:

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