

Supplier Name: \_\_\_\_\_  
 Supplier No: \_\_\_\_\_  
 Audit Date: \_\_\_\_\_

**HII-NNS - NONDESTRUCTIVE TESTING AUDIT CHECKLIST(LITE)**

*This Process checklist is divided into four (4) sections. Section A should be considered minimum requirements when reviewing NDT. Sections B-D are witness/observation, and considered optional (time permitting).*

**SECTION A – GENERAL**

A1.	a. Identify types of nondestructive testing performed at the facility being audited:			
	___MT	___UT	___PT	___ET
	___RT	___VT		
	___ Other (specify):  <i>For informational purposes, however, a check should be done that compares what NDT is being performed to what welding spec/PO requirements are. In addition, sub tier suppliers capabilities should be given consideration as well.</i>			
	b. Identify which test processes were witnessed and which were verified by objective quality evidence.  <i>Self explanatory.</i>			
A2.	Are applicable NDT procedures available and approved (IF REQUIRED)? Identify procedure number, revision, date and applicable Approval Number (if required).  <i>For Newport News CVN work, an approved form 4790 is the correct approval document. For the VCS program, evidence of approval is a completed and approved VPAR form. For VCS contracts, NNS can accept EB VPAR NDT procedure approvals.</i>			
	MT Procedure _____	Rev. ___	Date _____	# _____
	PT Procedure _____	Rev. ___	Date _____	# _____
	UT Procedure _____	Rev. ___	Date _____	# _____
	VT Procedure _____	Rev. ___	Date _____	# _____

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	ET Procedure _____	Rev. ____	Date _____	# _____	
	RT Procedure _____	Rev. ____	Date _____	# _____	
<b>Personnel Qualification:</b>					
A3.	<p>Are the Level III NDT Examiner personnel initially certified via the proper examination method?</p> <p><i>For a Level III NDT Examiner, there are three (3) exams required: Basic, Method and Specific. Each area requires a minimum score of 70%, with an overall composite minimum of 80%. If a Level III Examiner possesses an ASNT certificate that was received by actual testing, this cert covers the Basic and Method exams. The supplier is still responsible for ensuring their Level III Examiner(s) (in-house or outsourced) receive a Specific Exam.</i></p>				<p>___ Yes ___ No</p>
A4.	<p>Are the Level II NDT inspection personnel initially certified via the proper examination method?</p> <p><i>For a Level II NDT Examiner, there are three (3) exams required: General, Specific and Practical. Each area requires a minimum score of 70%, with an overall composite minimum of 80%.</i></p>				
A5.	<p>Are all NDT personnel, including the examiner, recertified by examination at a minimum interval as required by specification?</p> <p><i>The Level III Examiners and Level II inspectors are required to re-certify by examination by taking the required three (3) exams again (just like initial certification). The use of commercial standards where the “point system” or “continued satisfactory performance” for re-certification is NOT ALLOWED.</i></p> <p><i>For a Level III Examiner, they must re-certify every five (5) years for Tech Pub 271 work, and every three (3) years for MIL-STD-271F work.</i></p> <p><i>For a Level II Inspector, they must re-certify every three (3) years.</i></p> <p><b><i>CAUTION: If when reviewing re-certification paperwork you are presented with an ASNT cert for a Level III Examiner, that ASNT cert must have been obtained by taking the actual exams.</i></b></p>				<p>___ Yes ___ No</p>
A6.	<p>Are adequate records available to administer personnel qualification; e.g. name, evidence of examination given, grade, re-certification dates, signature of examiner?</p> <p><i>Should be verified by review of the records.</i></p>				<p>___ Sat ___ Unsat</p>
A7.	<p>Do records include evidence of performance of applicable NDT during the last 6 months to maintain qualification?</p> <p><i>For Tech Pub 271 work, the Level II NDT inspectors need to perform the NDT they are</i></p>				<p>___ Sat ___ Unsat</p>

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	<i>qualified for once every 9 (nine) months to stay qualified. For MIL-STD-271F work, that timeframe is six (6) months.</i>	
A8.	a. Are vision test records available?  <i>Tech Pub/MIL-STD 271 requires all NDT personnel to receive an annual eye exam to the Jaeger J-1 requirements. The record should also indicate if the person needs corrective lenses or not.</i>	___ Sat ___ Unsat
	b. Do these records indicate a J1 Jaeger test or equivalent and brightness discrimination, on an annual basis?  <i>For RT personnel, a brightness discrimination test is required as well.</i>	___ Sat ___ Unsat
A9.	Do vision test records note corrective aids (glasses) when applicable?  <i>As noted in question A8 above.</i>	___ Sat ___ Unsat
<b>NDT Witnessing: The following Section B-D are to be answered as a result of observing NDT being performed and/or observation of the applicable work area:</b>		
<b>SECTION B: MT</b>		
<b>Magnetic Particle (MT):</b> ___ Sat ___ Unsat ___ N/A ___ Witnessed ___ Review of Records		
B1.	Is the correct procedure readily available to the inspector?  <i>Based on observation on the shop floor.</i>	___ Yes ___ No
B2.	Is the inspector qualified?  <i>Review the NDT inspector and the overseeing Level III Examiner's qualifications per section A above.</i>	___ Yes ___ No
B3.	Is the amperage within the procedure range?  <i>The MT equipment amperage should match with the MT procedure being utilized.</i>	___ Yes ___ No ___ N/A
B4.	Is the lighting adequate per procedure?  <i>Reference the approved MT procedure for specific lighting requirements and ensure proper lighting at the inspection spot is being used.</i>	___ Yes ___ No ___ N/A
B5.	Are correct accept/reject criteria being applied?	___ Yes ___ No ___ N/A

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	<p><i>Reference the applicable NDT procedure for usage at the inspection station. For NDT inspections conducted in support of welds to MIL-STD-278F, NAVSHIPS 0900-LP-003-8000 should be used. For welds to Tech Pub 278, MIL-STD-2035A should be used.</i></p>	
B6.	<p>Are records of MT performed adequate i.e. inspector and date, joint or piece inspected, equipment used, number and type of defects, repair description?</p> <p><i>The minimum that MT inspection records should contain is:</i></p> <ul style="list-style-type: none"> <li>- <i>description/ID of piece being examined</i></li> <li>- <i>procedure, instruction/equipment info</i></li> <li>- <i>acceptance standard</i></li> <li>- <i>date of inspection</i></li> <li>- <i>signature of inspector</i></li> <li>- <i>disposition (accept/reject)</i></li> </ul>	<p>___Yes ___No ___N/A</p>
B7.	<p>Is equipment calibration current?</p> <p><i>Verified via calibration records</i></p>	<p>___Yes ___No ___N/A</p>
<b>SECTION C: PT</b>		
<b>Liquid Penetrant (PT):</b> ___Sat ___Unsat ___N/A ___Witnessed ___Review of Records		
C1.	<p>Is the correct procedure available to the inspector?</p> <p><i>Based on observation on the shop floor.</i></p>	<p>___Yes ___No</p>
C2.	<p>Is the inspector qualified?</p> <p><i>Review the NDT inspector and the overseeing Level III Examiner's qualifications per section A above.</i></p>	<p>___Yes ___No</p>
C3.	<p>Is the lighting adequate per procedure?</p> <p><i>Reference the approved MT procedure for specific lighting requirements and ensure proper lighting at the inspection spot is being used.</i></p>	<p>___Yes ___No ___N/A</p>
C4.	<p>Are correct accept/reject criteria being applied?</p> <p><i>Reference the applicable PT procedure for usage at the inspection station. For NDT inspections conducted in support of welds to MIL-STD-278F, NAVSHIPS 0900-LP-003-8000 should be used. For welds to Tech Pub 278, MIL-STD-2035A should be used.</i></p>	<p>___Yes ___No</p>

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C5.	<p>Are the correct precleaning, penetrant and inspection developer dwell times being used?</p> <p><i>The appropriate PT procedure will list out precleaning times, penetrant times and developer dwell times. The inspector should have a means to monitor how long each of these has been applied, and should stay within the timeframe required in the procedure.</i></p>	<p>___Yes ___No</p>
C6.	<p>Are there adequate records of PT performed?</p> <p><i>The minimum that PT inspection records should contain is:</i></p> <ul style="list-style-type: none"> <li>- <i>description/ID of piece being examined</i></li> <li>- <i>procedure</i></li> <li>- <i>Penetrant manufacturer and type ID</i></li> <li>- <i>acceptance standard</i></li> <li>- <i>date of inspection</i></li> <li>- <i>signature of inspector</i></li> <li>- <i>disposition (accept/reject)</i></li> </ul>	<p>___Yes ___No</p>
<p><b>SECTION D: VT</b></p>		
<p><b>Visual Inspection (VT):</b>    ___Sat    ___UnSat    ___N/A    ___Witnessed    ___Review of Records</p>		
D1.	<p>a. Is the correct procedure readily available to the inspector?</p> <p><i>Based on observation on the shop floor.</i></p>	<p>___Yes ___No</p>
	<p>b. Is performance in accordance with the procedure?</p> <p><i>Based on observation and discussion with Level II VT inspector. When feasible, observation(s) of performance should be conducted on actual work completed to the invoked specifications.</i></p>	<p>___Yes ___No</p>
	<p>c. When applicable, is the correct magnification used?</p> <p><i>If magnification is required by either the supplier's procedure or the specification requirements, the correct magnifying equipment should be on station as needed.</i></p>	<p>___Yes ___No</p>
D2.	<p>Is the inspector qualified?</p> <p><i>Review the NDT inspector and the overseeing Level III Examiner's qualifications per section A above.</i></p>	<p>___Yes ___No</p>
D3.	<p>Are adequate gages and measuring devices available to perform inspection in accordance with the procedure?</p> <p><i>As a minimum, welding fillet gauges should be employed. Other gauges/measuring equipment that should be considered are:</i></p> <ul style="list-style-type: none"> <li>- <i>Bridge cam gauge</i></li> </ul>	<p>___Yes ___No ___N/A</p>

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	<ul style="list-style-type: none"> <li>- <i>Machinist's Scale</i></li> <li>- <i>Undercut depth measuring devices</i></li> </ul>	
D4.	<p>Is lighting adequate?</p> <p><i>Reference the approved VT procedure for specific lighting requirements and ensure proper lighting at the inspection spot is being used.</i></p>	<p>___Yes ___No</p>
D5.	<p>For VT of welds, do inspections and records adequately cover the cover the following:</p> <p><i>Based on a review/sample of VT records and observations/discussions with the NDT VT personnel on the shop floor.</i></p>	
	* Weld size _____	___Yes ___No
	* Weld configuration _____	___Yes ___No
	* Surface uniformity _____	___Yes ___No
	* Surface cleanliness _____	___Yes ___No
	* Physical defects _____	___Yes ___No
	* Contour of welded and/or ground surface _____	___Yes ___No
D6.	<p>For VT of items other than welds, are records available?</p> <p><i>If the specification/contract requires a bonafide</i></p>	<p>___Yes ___No</p>

**Additional Comments/Concerns:**