Procedure

Liquid Penetrant Testing Procedure Review Checklist NAVSEA Technical Publication T9074-AS-GIB-010/271 Rev. 0 ACN 1 Dated 16 February 1999

contains the information? Minimum attributes that are required to be in the procedure No N/A **TP271 Section** Yes Procedure certification statement. (e.g. I certify that this procedure, this 1.7.1 procedure is certified to meet the requirements. I attest to the fact that this procedure, etc.) Level III Examiner's signature denoting approval. 1.7.3 1.6 Personnel certification requirements. 1.4 Time of inspection. Procedure demonstration information. 1.7.2, 5.4.2.1 5.4 Penetrant materials to be used. Penetrant, emulsifiers, removers, developers on the QPL of AMS-2644. 5.4 5.6.8 Lighting requirements. Order of testing (PT before UT). 5.6.1 Materials to be tested. 5.1 Surface preparation / Precleaning. 5.5, 5.6.2 Finished surfaces. 1.4, 5.5.1 Details of method of penetrant application and dwell time (minimum and 5.6.4 Method A not for use on welds. Method C not for use on threads. 5.4 Temperature of surface and penetrant during penetration. 5.6.3 When applicable, the details of method of removing excess penetrant 5.6.5.4 from the surface, method A (including maximum rinse time). When applicable, the details of method of removing excess penetrant 5.6.4.1, 5.6.5.3 from the surface, method B and D. (including emulsifier application (details from emulsifier manufacturer) and dwell time (minimum and maximum)). When applicable, the details of method of removing excess penetrant 5.6.5.1, 5.6.5.2 from the surface method C. Details of surface drying after penetrant removal. 5.6.6 5.6.7 Details of method of applying the developer. Length of developing time before inspection. 5.6.7 5.6.9 Post cleaning requirements. Applicable acceptance criteria. Acceptance criteria shall be self-standing 1.3 (no references to other documents).

Inspection record requirements.				5.4.2.2
Other attributes that should be in the procedure	Yes	No	N/A	TP271 Section
If acetone or alcohol was not used as the final pre-cleaning step, the procedure must have the evaporation technique (forced or natural) and the evaporation time and temperature combination(s) for the type of cleaner used.				5.6.2
Non-relevant indication determination requirements.				5.7.1
Definitions				5.2

Magnetic Particle Testing Procedure Review Checklist NAVSEA Technical Publication T9074-AS-GIB-010/271 Rev. 0 ACN 1 Dated 16 February 1999

Procedure contains the information? Minimum attributes that are required to be in the procedure No N/A TP271 Section Yes Procedure certification statement (e.g. I certify that this procedure, this 1.7.1 procedure is certified to meet the requirements, I attest to the fact that this procedure, etc.). Level III Examiner's signature denoting approval. 1.7.3 1.6 Personnel certification requirements. 1.4 Time of inspection. Procedure demonstration information. 1.7.2, 4.3.1.2 4.3.1.1.1 Lighting requirements. 4.3.1.7 Equipment accuracy checks (calibration) interval requirements. 1.4, 4.3.1.4, Surface preparation (finishing and cleaning). 4.3.1.4.1 Inspection through coatings requirements. 4.3.1.3 Method for determining maximum coating thickness (if any). 4.3.1.3 Material shapes and sizes to be inspected. 4.3.1.2(a) Type of magnetization to be used (circular, longitudinal, or both). Note 1 4.3.1.5 Direction of magnetization to be used. Equipment to be used for magnetization. 4.3.2.1.1, 4.3.2(Wet) Whether wet or dry method to be used. 4.3.3(Dry) Particle application and removal. 4.3.2.5. 4.3.3.2. 4.3.3.2.1. 4.3.3.2.2 Type of magnetic particles to be used (e.g. Magnaflux 8A, Circle 778, 4.3.2.1, 4.3.3.1 Met-L-Chek WCP-81, etc.). Suspension concentration requirements for wet method. 4.3.2.6.1 Suspension liquid vehicle requirements for wet method (e.g. Magnaflux 4.3.2.2 Carrier II, Circle Sol M, etc.). Whether continuous or residual method used, wet. 4.3.2.5.1, 4.3.2.5.2 Whether continuous or residual method is used, dry. 4.3.3.4.3 Magnetizing current (amps, alternating current [AC] or direct current 4.3.1.8. [DC]) requirements. 4.3.2.5.5, 4.3.2.5.7, 4.3.3.3.4

Prod or yoke overlap requirements.				4.3.3.4.1, 4.3.3.4.2
Complex shape requirements.				4.3.1.8, 4.3.3.3.3
Demagnetization requirements.				4.3.1.6
Arc strikes requirements.				4.7
Examination record requirements.				4.3.1.9
Post cleaning requirements.				4.3.2.2.1
Applicable acceptance criteria. Acceptance criteria shall be self-standing (no references to other documents).				1.3
Other attributes that should be in the procedure	Yes	No	N/A	TP271 Section
Non-relevant indication determination requirements.				4.5
Evaluation of indications.				4.4
Definitions				4.2

Note 1: The technical publication does not give specific guidance about what information must be included to satisfy this requirement, section 4.3.1.2 only requires that the information be included.

Visual Testing Procedure Review Checklist NAVSEA Technical Publication T9074-AS-GIB-010/271 Rev. 0 ACN 1 Dated 16 February 1999

Minimum attributes that are required to be in the precedure	contains the information? Yes No N/A			TD274 Section
Minimum attributes that are required to be in the procedure	Yes	NO	N/A	TP271 Section
Procedure certification statement (e.g. I certify that this procedure, this procedure is certified to meet the requirements, I attest to the fact that this procedure, etc.).				1.7.1
Level III Examiner's signature denoting approval.				1.7.3
Personnel certification requirements.				1.6
Time of inspection.				1.4
Lighting requirements.				8.7
Type of welds or surfaces to be inspected.				Note 1, Note 2
Specific measuring devices to be used.				Note 1
Visual aids, reference standards, workmanship standards.				8.2
List of inspection attributes (visual characteristics).				Note 1
Classification of defects.				Note 1
Applicable acceptance criteria. Acceptance criteria shall be self-standing (no references to other documents).				1.3
Inspection record requirements.				8.4
Other attributes that Should be in the procedure	Yes	No	N/A	TP271 Section
Procedure demonstration information				1.7.2.

Note 1: The technical publication does not give specific guidance about what information must be included to satisfy this requirement, section 8.3 only requires that the information be included.

Note 2: This requirement can be satisfied by simply offering an opening statement to the effect that this procedure specifies the requirements for performing the visual inspection of completed fabrication weldments in accordance with (enter applicable specification).

Procedure

Ultrasonic Testing Procedure Review Checklist NAVSEA Technical Publication T9074-AS-GIB-010/271 Rev. 0 ACN 1 Dated 16 February 1999

contains the information? Minimum attributes that are required to be in the procedure No N/A **TP271 Section** Yes Procedure certification statement (e.g. I certify that this procedure, this 1.7.1 procedure is certified to meet the requirements, I attest to the fact that this procedure, etc.). Level III Examiner's signature denoting approval. 1.7.3 1.6 Personnel certification requirements. 1.4 Time of inspection. Procedure qualification. 1.7.2, 6.5.2.1 6.4 Instrument model(s) allowed for the inspection. Equipment qualification method or reference to a qualification procedure. 6.5.1 Frequency of basic instrument qualification. 6.5.1.4 Surface finish. 6.3.2 Material, shape, or sizes to be tested or to be exempt from testing. 6.1 Automatic defect alarm and recording equipment or both. Note 1 Special search units, wedges, shoes, or saddles. Note 1 Rotating, revolving feeding mechanisms. Note 1 Stage of manufacture when test will be performed. 6.3 Dependent on The surface from which the test shall be performed. material and method 6.3.4 Couplant. Description of calibration standard including number, hole size, notch 6.3.6, 6.6.1 thru description and when rechecks are required. 6.8.4.4 Calibration method 6.3.6, 6.6.1 thru 6.8.4.4 Type of attenuation correction used. 6.6.4.3.3. Scanning (speed, overlap, continuous, from what surface, sketches, 6.3.3, 6.6.1 thru etc.). 6.8.4.4 Mode of transmission. 6.6.1 thru 6.8.4.4 Transducer size, frequency and angle. 6.6.1 thru 6.8.4.4 Discontinuity evaluation. 6.5.3 Flaw Plotting for bond testing. 6.8.6

Method of recording inspection results.				6.5.4, 6.6.4.5
Applicable acceptance criteria. Acceptance criteria shall be self-standing (no references to other documents).				1.3
Other attributes that Should be in the procedure	Yes	No	N/A	TP271 Section
The test method for which type of material. (e.g. forgings, castings, rolled or extruded shapes, bar stock, plate, weldments, pipe and tubing, bonded materials, and metal sheet).				6.3
Definitions				6.2
For immersion testing: alignment, angle, water path.		П		-

Note 1: The technical publication does not give specific guidance about what information must be included to satisfy this requirement, section 6.5.2 only requires that the information be included.

Radiographic Testing Procedure Review Checklist NAVSEA Technical Publication T9074-AS-GIB-010/271 Rev. 0 ACN 1 Dated 16 February 1999

Procedure contains the information? Minimum attributes that are required to be in the procedure No N/A **TP271 Section** Yes Procedure certification statement (e.g. I certify that this procedure, this 1.7.1 procedure is certified to meet the requirements, I attest to the fact that this procedure, etc.). Level III Examiner's signature denoting approval. 1.7.3 1.6 Personnel certification requirements. X-ray machine information. 3.3.2.1(a) Isotope source information. 3.3.2.1(b) 3.4.10, 3.4.11 Film viewing facilities. Film viewing equipment. 3.4.11.1 Density-measuring equipment used. 3.4.11.1(e) Surface preparation. 3.4.12 Direction of radiation. 3.4.1 Screens and filters. 3.4.2 Film type (e.g. Agfa D4, Carestream M100, Fuji IX80, etc.). 3.4.3 Film density. 3.4.3.2 Film Quality. 3.4.3.1 Source to film distance. 3.4.6 3.4.7 Radiographic location markers. 3.4.8 Film identification. 3.4.14 Interpretation of radiographs. Penetrameters 3.5 3.5.1 Penetrameter material. Penetrameter selection. 3.5.4 Number, location, and placement of penetrameters. 3.5.5 Number of penetrameters and placement for welds. Table IV **Shims** 3.6 Radiographic quality levels. 3.7 Single wall and double wall radiography. 3.8 Film processing method / Darkroom facilities. 3.4.10 Radiography of repair welds. 3.9

Radiography of castings and forgings.				3.10
Dissimilar metal welds.				3.5.1.1
Radiographic records.				3.4.9, 3.4.15
Other attributes that Should be in the procedure	Yes	No	N/A	TP271 Section
Multiple film techniques.				3.4.3.3
Radiography of parts.				3.5.5.4
Extent of radiographic testing.				3.3.1
Procedure qualification.				1.7.2
Applicable acceptance criteria. Acceptance criteria shall be self-standing (no references to other documents).				1.3
Definitions				3.2

Eddy Current Testing Procedure Review Checklist NAVSEA Technical Publication T9074-AS-GIB-010/271 Rev. 0 ACN 1 Dated 16 February 1999

	contains the information?			
Minimum attributes that are required to be in the procedure	Yes	No	N/A	TP271 Section
Procedure certification statement (e.g. I certify that this procedure, this procedure is certified to meet the requirements, I attest to the fact that this procedure, etc.).				1.7.1
Level III Examiner's approval/signature of procedure.				1.7.3
Personnel certification requirements.				1.6
Time of inspection.				1.4
Material to be tested.				Note 1
Summary of process used.				Note 1
Surface finish.				7.3.1.2
Equipment description.				7.4
Performance verification description / Calibration				7.5
Surface preparation.				7.3.1.2
Normalization technique.				7.5
Scanning technique.				7.6
Evaluation of test results.				7.7
Inspection record requirements.				7.3.3
Applicable acceptance criteria. Acceptance criteria shall be self-standing (no references to other documents).				1.3
Other attributes that Should be in the procedure	Yes	No	N/A	
Procedure qualification.	П	П		1.7.2

Note 1: The technical publication does not give specific guidance about what information must be included to satisfy this requirement, section 7.3.2 only requires that the information be included.