

XXII WELDING/WELD REPAIR AUDIT CHECKLIST

This Process Guideline is divided into eight (8) sections. In most cases, all sections will not apply at one facility. Sections applicable to all types of welding and should be completed in all cases are: I, II, VII and VIII. These sections along with the applicable type process being audited should complete the review.

SECTION I GENERAL (circle one) Sat UnSat N/A

A 1. Does supplier have the necessary welding/welding repair controls and procedures in place to perform on existing contracts?

A 2. Weld Processes Used (check applicable boxes):

Stick	MIG	TIG	Sub Arc	Spot	Other
SMA	GM A W	GT A W	SA W	Resistance	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Define Other _____

A Weld Procedure Qualifications (check applicable boxes):

A S M E	MIL-STD-248	Navy Apprvd	Cust Apprvd
<input type="checkbox"/>	<input type="checkbox"/> Revision _____	<input type="checkbox"/>	<input type="checkbox"/>

Other: Define: _____

A Materials Welded/Weld Repaired (check applicable boxes):

HTS	HSLA80	HSLA100	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HY100	HY80	Stainless/ Nonferrous	Mat'l Requiring Preheat/Interpass Temp. Controls
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Pipe/Mach

Other -Define: _____

A 3. **Applicable Weld Process Specifications (check applicable boxes):**

MIL-STD-1689 MIL-STD-1681 MIL-STD-1688

A S M E MIL-STD-278 PPD694 PPD720 PPD689

S9074-AD-GIB-010/278 T9074-AD-GIB-010/1688

Other - Define:

A 4. **Procedure Parameters/ Approvals:**

Proc Number Materials to be welded Required filler material Approval No:

A 5.a Is there a procedure in place to assure compliance with welding procedures and fabrication documents and are they readily available? Yes No N/A

A 5.b Is there a QA audit/surveillance procedure in place to weld procedures and fabrication documents?

A 6. Do travelers/work instructions give detailed welding instructions or refer the welder to applicable documents?

A 7. Does the supplier invoke all Customer contract/purchase order requirements for welding to his subtier suppliers?

		Sat	UnSat	N/A
<u>SECTION II PROCEDURAL:</u>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Yes	No	N/A
A	1. Is there a system to assure that welding (including Tack and Temporaries) is only performed by operators qualified in the procedure and position?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	2. Is there a system to assure qualifications are maintained? (MIL-STD-248 Quarterly) (S9074-AR-GIB-010/248)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Yes	No	N/A
A	a Is there evidence of annual vision tests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	3. Does the Traveler/Process Sheet/Other Instruction identify each required inspection and NDT?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Sat	Unsat	
A	4. Are contractual records maintained?	<input type="checkbox"/>	<input type="checkbox"/>	
		Yes	No	N/A
	a. Performance of inspections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Records of defects found	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Welder identification where required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d. Electrodes/Flux Test Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e. Qualification and Vision Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	5. Explain/describe records reviewed in regards to clarify, accountability and specification compliance:			
A	6. Are there records to assure that electrodes are purchased and issued to the required military specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | Yes | No | N/A |
|---|---|--------------------------|--------------------------|--------------------------|
| A | a. Is the weld wire verified for conformance by reviewing certifications for compliance to the applicable Wire Specifications?? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | b. Are ferritic filler materials chemically analyzed for compliance to applicable Wire Specifications? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 7. Are weld consumables adequately identified, segregated and controlled? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | a. In Wire Room and Ovens? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | b. While issued to Production? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 7. Is a Wire Chit system in use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 8. Are electrodes returned to the issuance point? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 9. Does the supplier bake electrodes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | a. Are controls in accordance with applicable specification requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 10. Are Baking/Holding ovens properly used? (flux and covered electrodes) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- | | | Yes | No | N/A |
|---|--|---------------------------------|-----------------------------------|---------------------------------|
| A | 11. Are electrode moisture tests performed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 12. Are Baking/Holding ovens adequately maintained? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 13. Does system control compatibility of wire/flux combination to the base material? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 14. Is a written procedure in effect describing weld quality and completeness requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 15. To what extent is welding process monitoring being done? | Sat
<input type="checkbox"/> | Unsat
<input type="checkbox"/> | N/A
<input type="checkbox"/> |
| A | a Are all welding attributes and controls reviewed?
Are records kept? Explain: | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | N/A
<input type="checkbox"/> |
| A | 16. Are workmanship* inspections documented? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | a Are detailed records or a more generalized record of accomplishment used? Explain | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 17. Are weld repair operations, including required evaluations and approvals, properly documented and traceable to the completed material?
Explain documentation: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

*Workmanship attributes include: weld joint prep, backgouge/grind roots, repair excavation contours, arc strikes, spatter, fabrication scars, alignment and fairness, tapers, snipes, intersecting butts, etc.

		Sat	Unsat
	<u>SECTION III FABRICATION WELDING:</u>	<input type="checkbox"/>	<input type="checkbox"/>
A	1. Qualification:		
		Yes	No N/A
A	a. Procedure approved?	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
A	b. Welder qualified to this process/method/position?	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
A	2. Weld processes used:		
A	3. Joint Preparation and Configuration:	Sat	Unsat
		<input type="checkbox"/>	<input type="checkbox"/>
		Yes	No N/A
A	a. Evidence of correct configuration to plans, drawing, fabrication document prior to welding?	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
A	4. Material to be welded positively identified (traveler, stamped, paint stick, other)?	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
A	5. Filler material properly identified on work traveler, production Records IAW approved procedure?	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
A	6. Tack Welding	Sat	Unsat
		<input type="checkbox"/>	<input type="checkbox"/>
		Yes	No N/A
A	a. Evidence of NDT of tack weld if applicable (i.e. MT)	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

A	7.	Preheat used?	Sat <input type="checkbox"/>	Unsat <input type="checkbox"/>	
A	a.	Method of preheat (strip heaters, radiant/infrared, torch-gas/air, oxygen-fuel)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
A	b.	Were preheat temperatures monitored?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	8.	Control of Heating:	Sat <input type="checkbox"/>	Unsat <input type="checkbox"/>	
A	a.	Welding performed within building?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
A	b.	Welding performed outdoors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	c.	Ambient temperature recorded	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
A	9.	Control of Minimum Temperatures:	Sat <input type="checkbox"/>	Unsat <input type="checkbox"/>	
A	a.	Was a minimum temperature established?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
A	b.	Was MT required due to loss of minimum temperature?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
A	c.	Was MT performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	10.	Control of Maximum Temperatures:	Sat <input type="checkbox"/>	Unsat <input type="checkbox"/>	

- | | | | | |
|---|---|---------------------------------|-----------------------------------|---------------------------------|
| A | a. Was a maximum temperature established? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | N/A
<input type="checkbox"/> |
| A | b. Evidence of maximum temperature monitoring? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 11. Temperature Checks: | Sat
<input type="checkbox"/> | Unsat
<input type="checkbox"/> | |
| | a. Was interpass temperature checked? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | N/A
<input type="checkbox"/> |
| A | b. Method of temperature checks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | c. Was surveillance of preheat temperature checks performed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 12. Weld Repairs for Cracks: | Sat
<input type="checkbox"/> | Unsat
<input type="checkbox"/> | |
| A | a. Excavation heat soaking shall be performed after excavation and prior to repair welding. Soaking shall be 350° F minimum for 12 hours minimum.
(Applicable to HY100 fabrication welding per PPD8026335720 Rev B, [MIL-STD-1668 Rev B] Section 13, Welding Requirements T9074-AD-GIB-010/1688) | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | N/A
<input type="checkbox"/> |
| A | 13. Repairs by Grinding: | Sat
<input type="checkbox"/> | Unsat
<input type="checkbox"/> | |
| A | a. Were defects repaired by grinding? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | N/A
<input type="checkbox"/> |
| A | b. Was minimum design thickness verified after grinding? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | N/A
<input type="checkbox"/> |

- | | | | |
|---|--|---------------------------------|---|
| A | 14. Repairs by Welding: | Sat
<input type="checkbox"/> | Unsat
<input type="checkbox"/> |
| A | a If yes, was all original weld processes and procedures utilized? | Yes
<input type="checkbox"/> | No N/A
<input type="checkbox"/> <input type="checkbox"/> |

A Filler material used for repair:

- | | | | | |
|---|------------------------------------|--------------------------|--------------------------|--------------------------|
| A | 15. Was arc stud welding utilized? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | a. Method of stud welding: | | | |

A b. Equipment used

SECTION IV MIL-STD- 278 WELDING

- | | | | | |
|---|---|---------------------------------|-----------------------------------|---------------------------------|
| | | Sat
<input type="checkbox"/> | UnSat
<input type="checkbox"/> | N/A
<input type="checkbox"/> |
| A | 1. Is the classification of MIL-STD-278 type weld identified?(Para. 3.3.2 of MIL-STD-278) | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | N/A
<input type="checkbox"/> |

- A
- Class M _____ Piping Class P-1
 - Machinery _____
 - Other Class P S\ (specify) _____
 - Pressure vessels and tanks - Class A _____
 - Steam turbines - Class T _____

- | | | | | |
|---|---|--------------------------|--------------------------|--------------------------|
| A | 2. Is the welding procedure for the type/classification of weld approved? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|---|--------------------------|--------------------------|--------------------------|

A 3. Does the filler materials used conform to the requirements of Table III of MIL-STD-278? Yes No N/A

A 4. For Class P thin wall tubing, was the shield metal arc process used? (MIL-STD-278 para 6.2.2 specifies that the process may be used for wall thickness of 0.109 inch or over when welded on board ship or over when welded in the shop. Other welding processes will be permitted for thinner walls on the basis of welding procedure qualification tests) List other processes

A 5. Does the preheat and interpass temperature for welded *ferrous* alloys conform to Table IV of MIL-STD-278?

Review records, travelers, documentation. Specify sample size.

A 6. Does the preheat and interpass temperature for welded *non-ferrous* alloys conform to Table V of MIL-STD-278?

Review records, travelers, documentation. Specify sample size.

- | | | Yes | No | N/A |
|---|---|--------------------------|--------------------------|--------------------------|
| A | 7. a. For <i>ferrous</i> alloys, was the post heat requirements of Table VI of MIL-STD-278 complied with? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. Was post weld heat treatment performed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | c. If performed, do the records, documentation conform to the requirement of Paragraph 8.2 of MIL-STD-278 for special requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 10. Do records indicate the type of NDT performed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | a. Verify the NDT method used is correct for the type/class of welding in accordance with the requirements of MIL-STD-278. RT, MT, PT, UT, VT | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 8. Do records indicate that persons performing NDT are qualified? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | a. Is the NDT procedure utilized approved by EB, NNS, other? (as specified in the contract?) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | b List approval documentation reference number_ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

		Yes	No	N/A
	<u>SECTION V PLATE WELD REPAIRS</u>			
	A. HY100 PLATE WELD REPAIRS			
A	1.a	Is the supplier utilizing MIL-S-11018 filler material to perform weld repairs?		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1.b	Is the supplier utilizing automatic/semi-automatic wire (e.g. 100S electrode) to perform weld repairs?		
A	2.a	Does the supplier procure/utilize precertified MIL-S-1018 filler material?		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2.b	Does the supplier certify any weld metals?		
A	3.	Is the supplier aware of the repair size limitations (area and depth)?		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	4.	Is the supplier aware that minor repairs defined as any excavation less than or equal to 1/8" or 10% of the plate thickness to a maximum of 0.25" (whichever is greater) and less than 16 square inches?		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	5.	Are notations made in plate inspection records for areas repair welded or requiring weld repair? (e.g. size, depth, location)		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- A 6. Are minimum and maximum preheat and interpass Temperature requirements being complied with? Yes No N/A

	Minimum Preheat and Interpass	Maximum Preheat Interpass
1-1/8 and over	200	300
>1/2 < 1-1/8	125	300
1/2 or less	60	300

- A 7. Does the supplier submit Waiver Requests for defects which exceed the size limits defined above?

B. MS, HTS, HY80, MHSLA80, HSLA100 Plate WELD REPAIRS Sat UnSat N/A

- A 1. Is the supplier utilizing the appropriate filler material. Yes No N/A

- A 2. a Does the supplier procure/utilize precertified filler material?

- A 2. b. Does the supplier certify any weld metals?

- A 3. Is the supplier aware of the repair size limitations? (Area and depth)

- A 4. Is the supplier aware of the definition of minor repairs?

			Yes	No	N/A
A	5.	Are notations made in plate inspection records for areas repair welded or requiring repair? (e.g size, depth, location)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	6.	Are minimum and maximum preheat and interpass temperature requirements of the fabrication specification being complied with?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	7.	Does the supplier submit Waiver Requests for defects which exceed the size limits defined above?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Sat	UnSat	N/A
		SECTION VI. CASTING REPAIRS:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		A. HY100 CASTING REPAIRS			
			Yes	No	N/A
A	1.a	Is the supplier utilizing MIL-S-11018 filler to perform weld repairs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1.b	Is the supplier utilizing automatic/semiautomatic wire (e.g. 100S electrode) to perform weld repairs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	2.a	Does the supplier procure/utilize precertified MIL-S-11018 filler material?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2.b	Does the supplier certify any welds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	3.	Is the MIL-S-11018 filler material utilized by the supplier maintained and controlled by the supplier IAW T9074 AD-GIB-010/1688?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	4.	Does the supplier have a workmanship procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- A 5. Is the supplier aware of the repair size limitations (area and depth) as denoted in the applicable specification and described below: Yes No N/A

Parameters:

Weld repairs in castings shall be interpreted to the Class III standards of NAVSEA 0900-LP-003-9000 (Section 2 does not apply).

Minor Repairs - Repairs of surface defects for which the excavations do not exceed the following:

The maximum depth does not exceed 1/2 inch or 20 percent of the casting thickness, whichever is less, or individual repair areas do not involve more than 2 percent of the casting surface, or the total repair area does not exceed 10 percent of the casting surface.

Nominal Repairs - Repairs which exceed the limitations stated above for minor repairs but do not exceed 2 inches or half the casting thickness in depth, whichever is less. The total accumulated volume of weld metal involved shall not exceed 4 percent of the volume of metal in the casting. Adjacent nominal repairs shall be separated by a distance equivalent to the maximum dimension of the smaller repair or 3/4 inch, whichever is less. If this requirement is not met, the repairs shall be jointed.

Special Repairs - Repairs are those which exceed the limitations stated above for nominal repairs. These repairs are only permitted with prior approval on a case basis. These repairs may include excavations completely through the wall of the casting.

- A 6. Are minimum and maximum preheat and interpass temperature requirements as stated below being complied with? Yes No N/A

Preheat	Minimum Preheat and Interpass	Maximum Interpass
1-1/8 and over	200	300
Over 1/2 but less Than 1-1/8	125	300
1/2 or less	60	300

A	7. Are weld repairs documented properly? (e.g. size, depth, location, etc.)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
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III.B	Ferrous and Nonferrous Casting Repairs: (other than HY100)	Sat <input type="checkbox"/>	UnSat <input type="checkbox"/>	N/A <input type="checkbox"/>
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A	1. Is the supplier using the appropriate filler material to perform the weld repair?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
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A	2. a. Does the supplier procure/utilize precertified filler material?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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A	2. b. Does the supplier certify any weld metal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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A	3. Does the supplier have a workmanship procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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A	4. Is the supplier aware of the repair size limitations (area and depth) as denoted in the applicable fabrication specification?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Castings:

Minor Repairs - Maximum depth does not exceed 20 percent of the casting thickness or 1 inch depth, whichever is less, and individual repair areas do not involve more than 4 percent of the casting surface.

Weld build up for correction of casting dimensions or machining discrepancies not exceeding 10 percent of the

total area of the casting may be made at the discretion of the contractor or when the weld build up is within the following: 3/16 inch maximum build up for wall thickness 1 inch and under or 20 percent of wall thickness maximum build up for wall thickness over 1 inch but not to exceed 3/8 inch.

Nominal Repairs - Nominal repairs are repair welds in excess of the above but which do not exceed 1/2 the casting thickness.

Special Repairs - Special repairs are those repairs for which excavations of defects are more extensive than those classified as nominal repairs or those that extend through the thickness of the casting or for which the use case inserts may be desired:

Repair of weld defects

All visual evidence of arc-strikes, weld or MT prod, shall be removed by grinding and repaired. Discoloration on metal surfaces due to MT inspection shall be disregarded. Excavations resulting from defect removal shall not require repair welding unless the depth and extent of the excavation exceeds the allowable depth and extent of acceptable weld undercut allowed by NAVSEA 0900-LP-003-8000 for the class of welding, or unless any portion of the excavation reduces the remaining metal thickness below the minimum design thickness for the part or weldment.

- | | | Yes | No | N/A |
|---|---|--------------------------|--------------------------|--------------------------|
| A | 5. Are minimum and maximum preheat and interpass temperature requirements of the fabrication specification being complied with? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 6. Are weld repairs documented properly? (e.g. size, depth, location, etc). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 7. Does the supplier submit Waiver Requests for defects which exceed the size limits above? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

		Sat	UnSat	N/A
A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>SECTION VII WELDER WORKMANSHIP TRAINING</u>			
	MIL-STD-248D (para 5.2.3.1),and/or : S9074-AQ-GIB-010/248			
		Yes	No	N/A
A	1. Is there a written procedure covering all aspects of training and associated responsibility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	2. Is there evidence of approval by the authorized representative as required by Technical Manual S9074-AQ-GIB-010-/248, paragraph 5.2.3.1.a of this training procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	3. Is there evidence of training in workmanship and detailed visual inspection requirements of all fabrication documents to which welding is performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	4. Have all welders passed written examinations covering detailed workmanship and visual inspection requirements with a grade of 75 percent or greater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	5. Is there evidence of approval of Items 1, 3 and 4 above by a Level III examiner or other NAVSEA approved individual? (MIL-STD-248, paragraph 5.2.3.1.d)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	6. Do examination records for each welder include: name, fabrication/acceptance standards covered, date of test,and certifying signature of test administrator?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	7. Is each welder retested every 3 years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A	8.	Is the entire training program audited by the Level III Examiner or other NAVSEA approved individual (MIL-STD-248, paragraph 5.2.3.1.d) at least once every 2 years to assure adequacy?	Yes	No	N/A	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A		<u>SECTION VIII PERFORMANCE</u>	Sat	UnSat	N/A	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

DETAILED OBSERVATION OF WELDERS
 (complete one section for each welder observed)
 NOTE: If determined to be N/A, provide explanation

A	a.	Welder Identification (name, badge or clock #, shift):	Yes	No	N/A	
		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	b.	Wire Chit on file (in-house system):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	c.	Welding Process observed:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	d.	Base Material(s) being welded:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	e.	Is the welder qualified for observed welding procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	f.	Is the welder familiar with details of the procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	g.	Is procedure/technique sheet readily available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	h.	Procedure Number:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	i.	Electrode/Filler Wire/Flux in use:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A	1.	Type			
A	2.	Specification			
A	j.	Material Identification: On records _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A		On hardware _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	k.	Parameters:	Yes	No	N/A
A	1.	Current	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	2.	Voltage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	3.	Travel Speed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	4.	Wire Size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	l.	Joint Preparation, Fitup and Clean	Sat <input type="checkbox"/>	Unsat <input type="checkbox"/>	N/A <input type="checkbox"/>
A	m.	Visual Weld Quality and Workmanship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	n.	Is preheat/interpass required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
A	1.	Is preheat temperature compliance checked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	2.	Is interpass temperature range confirmed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	o.	Overall, is operator complying with procedure and specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	p.	Are required documents organized in an orderly manner? (e.g. procedure and mods, Approval documents, etc., in one accessible location)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments/Concerns

