

XXV SOLDERING CONTROLS

SECTION I – Procedure:

A 1. Identify the standard the supplier uses for performing soldering.

MIL- STD 454 IPC-A-610 OTHER/

(IF Other, Specify:

A 2a. Does a written detailed procedure exist and is it utilized for the soldering process? Identify procedure number and revision. Yes No N/A

A 2b. Does a written detailed procedure exist for assembly of components prior to soldering? Identify procedure number and revision.

A 3.. Are procedures readily available?

A 4. Are inspection procedures utilized for soldering? Identify procedure number and revision;

A 5a. Are inspection and manufacturing personnel trained in use of procedures?

5b. Is this recorded and part of employee's file'?

A 6. Are soldering procedures written based on contract invoked requirements or generic and company based standards?

A 7a. Is the procedure approved by the Customer? List Reference Approval Number, if applicable:

7b.Does the procedure require review/approval by the government?

- | | | Sat | Unsat | N/A |
|---|--|--------------------------|--------------------------|--------------------------|
| v | | | | |
| A | 8. Are procedures/work instructions adequate for control of: | | | |
| | a. (Proper Equipment) etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. (Proper Materials) etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 9. What type of tools, mechanical strippers, chemical strippers, thermal strippers, holding devices, bending tools, clinching tools are required in the use of the procedures?,. Specify sample of tools | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 10. Does procedure include system for identification of inspection status on parts and documentation? (e.g. inspection stamp) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SECTION II – Record Review

- | | | Sat | Unsat | N/A |
|---|--|---------------------------------|--------------------------------|--------------------------|
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 11. Identify inspection methods used to verify conformance with procedures and standards | | | |
| A | 12. What inspection documents exist and are they maintained to confirm inspection process was performed? | Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | |
| | a. Are inspection documents properly completed and maintained? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | b. Review and record number of samples: _____ | | | |
| A | 13. Is traceability maintained for material which has been soldered? | <input type="checkbox"/> | <input type="checkbox"/> | |
| A | 14. Is inspection data reviewed and accepted by qualified personnel?: | <input type="checkbox"/> | <input type="checkbox"/> | |

- | | | Yes | No | N/A |
|---|---|--------------------------|--------------------------|--------------------------|
| A | 15. Are all tools, gages, meters, utilized for monitoring and/or inspection a part of the manufacturer's calibration program? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 16. Are certifications for raw materials used in soldering process reviewed for acceptance and maintained on file for review? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 17. Are adequate inspection work records maintained? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | 18. Are shop traveler and work records traced to the operator/inspection personnel? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SECTION III – OBSERVATION OF SOLDERING PROCESS

Detailed observation of solderer (complete one section for each solderer observed). NOTE: if determined to be N/A, provide explanation.

- | | | Sat | Unsat |
|---|---|--------------------------|--------------------------|
| A | 19. Identify process being observed. What is being soldered? | <input type="checkbox"/> | <input type="checkbox"/> |
| A | a. Solderer identification: (name, badge or clock #, shift) | | |
| A | b. Basic material(s) being soldered, pc board, wire, assembly, etc. | | |
| | c. Identify soldering material, solder type, flux, class, etc. | | |

- | | | Sat | Unsat | N/A |
|---|--|--------------------------|--------------------------|--------------------------|
| A | d. Is the solderer qualified for observed soldering procedure? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | e. Is the solderer familiar with details of the procedure? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | f. Procedure number: | | | |
| A | g. Is it readily available to the solderer and inspector? | <input type="checkbox"/> | <input type="checkbox"/> | |
| A | 20. Are their adequate methods of segregating accepted and rejected materials in use? | <input type="checkbox"/> | <input type="checkbox"/> | |
| A | 21. Do solder rolls and raw materials have traceable markings on containers. What type of solders are used? (List) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 22. Are soldering tools ions correct wattage for ESD or sensitive components. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A | 23. Are work areas clean from debris and separate from other areas for soldering operations. | <input type="checkbox"/> | <input type="checkbox"/> | |
| A | 24. Are exhaust equipment utilized in soldering areas to provide fresh air for personnel. | <input type="checkbox"/> | <input type="checkbox"/> | |
| A | 25. Do controls exist for handling and disposing of solder waste. | <input type="checkbox"/> | <input type="checkbox"/> | |