

**XVIII ELECTRICAL TESTING (ISO 4.10)**

- |   |  | Yes                             | No                             |                                 |
|---|--|---------------------------------|--------------------------------|---------------------------------|
| A | 1. Are electrical tests performed in accordance with the procurement spec, specification or drawing?                             | <input type="checkbox"/>        | <input type="checkbox"/>       |                                 |
| A | 2. Were all specific electrical tests performed and recorded IAW procurement spec, specification or drawing?                     | Yes<br><input type="checkbox"/> | No<br><input type="checkbox"/> | N/A<br><input type="checkbox"/> |
| A | 3. Does the supplier have an approved electrical test procedure?<br>List Procedure and Reference approval Number, if applicable: | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
| A | 4. Does electrical test procedures require special safety precautions?   | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
| A | 5. Are electrical tests performed on samples or 100% for production lots?  | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
|   | Sample: <input type="checkbox"/> Record sample size: _____   |                                 |                                |                                 |
|   | 100%: <input type="checkbox"/>   |                                 |                                |                                 |
| A | 6. If sampling is used for electrical tests, what sampling criteria is used?<br><br>List:  |                                 |                                |                                 |
| A | 7. Are electrical tests performed in an environmentally controlled area?   | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
|   | Is humidity monitored and recorded?  | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
|   | Is temperature monitored and recorded?   | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
|   | Is barometric pressure monitored and recorded?   | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
| A | 8. Are instruments utilized during electrical tests part of the calibration program?   | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
| A | 9. Are instruments, unique numbers of meters, probes, scopes, meggers, etc. recorded on test result documents?                   | <input type="checkbox"/>        | <input type="checkbox"/>       | <input type="checkbox"/>        |
|   | Record sample size: _____  |                                 |                                |                                 |

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		Yes	No	N/A
A	<b>10. Are personnel performing electrical tests knowledgeable and qualified in:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Use of tools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Use of instruments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>11. Does an electrostatic discharge (ESD) program exist at the facility?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>12. Does the supplier train personnel or have awareness program for ESD precautions?</b>	<input type="checkbox"/>	<input type="checkbox"/>	
A	<b>13.a. Are electrical tests performed on materials that contain ESD sensitive components?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>13b. Are special precautions observed?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>14a. Do procedures/work instructions, specifications or drawings require isolation of specific circuit during electrical testing?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>14b. Were circuit isolations documented on test reports?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>15a. Are special precautions required after electrical tests are performed (i.e. discharge time for motors, transformers, etc.)?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>15b. Are special precautions documented on the test report?</b>	<b>Sat</b> <input type="checkbox"/>	<b>Unsat</b> <input type="checkbox"/>	
A	<b>16. Is raw electrical data reviewed and accepted by qualified personnel?</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
A	<b>17. Are other tests required to be performed in conjunction with electrical testing (e.g. hydro)?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Yes	No	N/A
	<b>THE FOLLOWING QUESTIONS PERTAIN TO WIRE/CABLE MANUFACTURERS IN ADDITION TO THE QUESTIONS ALREADY LISTED:</b>			
A	<b>18. Does the wire/cable manufacturer perform inprocess spark testing while producing wire/conductors?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>19. Does the process allow for the production line to “stop” to flag the defective area?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>20. Does the manufacturer perform electrical tests after each production operation (example: insulation resistance after twisting/shield operation)?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>21. Does a procedure exist to detect production splices? NOTE: Splices are not allowed in finished cable.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>22. Are the number of production splices recorded on work-in-process documents and accounted for after final cable production?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>23a. Are cable production personnel knowledgeable of inprocess procedures/methods for detecting flaws (opens, shorts, etc.)?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>23b. Are procedures readily available?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>23c. Are nonconformances documented?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	<b>24. Are final electrical tests performed IAW the applicable specification or procurement spec?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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- |          |  | <b>Yes</b>               | <b>No</b>                | <b>N/A</b>               |
|----------|--|--------------------------|--------------------------|--------------------------|
| <b>A</b> | <b>25. Are final electrical tests performed in an environment suitable for the tests?</b>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>A</b> | <b>26. Are special precautions taken after electrical tests to prevent damage to product (example: Seal ends of cable to prevent moisture contamination, protection of cable jackets/sheathing, etc.)?</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>A</b> | <b>27. Are shipping reels, size, O.D. in accordance with the specification or procurement spec?</b>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Additional Comments/Concerns**