

thickness also increases the susceptibility of solvent entrapment, causing blistering and premature failure of the coating.

3.10.6.6 Due to the potential for excessive metal loss, for SSN-21 and SSN-774 Class submarines, only the following power tools may be used to obtain an SSPC-SP 11 surface: needle guns and rotopeens. On submarines, any areas of potential metal loss by corrosion or mechanical means shall be documented and reported to the SUPERVISOR.

3.10.6.7 **Recyclable Encapsulated Abrasive Media material conforming to SSPC-AB 4** may not establish a sufficient surface profile. If this method is employed and the profile is insufficient to meet the requirements, the repair activity shall establish a sufficient surface profile.

3.10.6.8 Waterjetting will not establish a surface profile. If this method is selected by the repair activity and a surface profile does not exist or is insufficient to meet the requirements, the repair activity shall establish a sufficient surface profile.

(I) (G) "CONDUCTIVITY OR CHLORIDE MEASUREMENT"

3.10.7 For surfaces listed in 3.7, accomplish the requirements for conductivity or chloride measurements as follows:

3.10.7.1 Following coating removal, accomplish conductivity or chloride measurements in accordance with the requirements of 3.10.7.3.

3.10.7.2 Additionally, accomplish a visual inspection within 4 hours prior to application of each coat of paint. If evidence of contamination of the surface exists, accomplish the requirements of 3.10.7.3.

3.10.7.3 Accomplish surface conductivity or chloride checks using available field or laboratory test equipment on the freshly prepared surface. One reading shall be taken for every 200 square feet for the first 1,000 square feet. One determination shall be conducted for every additional 500 square feet or less. For immersed applications, such as tanks and bilges, chloride measurements shall not exceed 3 $\mu\text{g}/\text{cm}^2$ (30 mg/m^2); conductivity measurements shall not exceed 30 micro-siemens/cm. For non-immersed applications, chloride measurements shall not exceed 5 $\mu\text{g}/\text{cm}^2$ (50 mg/m^2); conductivity measurements shall not exceed 70 micro-siemens/cm. Conductivity samples shall be collected using **a product that meets the requirements of NACE SP0508-2010, "Methods of Validating Equivalence to ISO 8502-9 on Measurement of the Levels of Soluble Salts"** (such as the Soluble Salt Conductivity Measurement according to Bresle Method, ARP Soluble Salt Meter model RPCT-07-001, or **SaltSmart from Innovative Productivity, Inc.**) Document on QA Checklist Form Appendix 4.

3.10.7.4 Because conductivity testing measures more than just chlorides, for any conductivity check that fails, a confirmatory chloride check may be conducted to confirm chloride levels. If the chloride levels do