

Section 5 Surface Preparation

5.1 Material Anomalies

5.1.1 Corner Condition – Remove all sharp corners prior to painting with either organic or inorganic zinc-rich primer by creating a small chamfer. With inorganic zinc rich primers, corners less acute than the definition of “sharp” need no further treatment prior to final cleaning (profiling) and painting. Sharp corners may usually be removed by a single pass with a grinder. For organic zinc-rich primer-based systems, all corners resulting from sawing, burning, or shearing operations must be broken or a primer stripe coat shall be applied to those corners.

Commentary:

Some corner “softening” (flattening) occurs during blast cleaning; however, blast cleaning alone will not sufficiently break a sharp corner. Corners in the as-rolled condition are not normally in need of any treatment. See further discussion in Section C1.2.

5.1.2 Preparation of Thermal Cut Edges – Before blast cleaning, condition (by lightly grinding) thermal cut edges (TCEs) to be painted, if conditioning is necessary to achieve proper blast cleaning profile.

5.1.3 Base Metal Surface Irregularities – Remove all visually evident surface defects in accordance with ASTM A 6 or AASHTO M 160 prior to blast cleaning steel. When material defects exposed by blast cleaning are removed, restore the blast profile either by blast cleaning or by using mechanical tools in accordance with SSPC-SP 11 or SP 15.

5.1.4 Weld Irregularities or Spatter – Remove or repair all sharp weld prominences, and all heavy, sharp, or loose weld spatter. Occasional individual particles of rounded tight weld spatter may remain, but widespread, sharp, or clustered particles of tight weld spatter must be removed.

Commentary:

While the removal of all weld spatter is recommended, it is recognized that absolute compliance would present difficulties, often leading to unnecessary rework. As a practical matter, occasional tightly adhered spatter may remain as long as paint coverage and adhesion are not adversely affected

5.2 Pre-Cleaning

Remove all oil, grease, and other adherent deleterious substances, including bolt lubricant