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Guide to SSPC-Vis 3

Standard reference photographs for steel surfaces prepared by power- and hand-tool cleaning

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Steel Structures Painting Council
4516 Henry Street, Suite 301
Pittsburgh PA 15213-3728
412-687-1113
FAX 412-687-1153

4. CONDITIONS DEPICTED

4.1 Initial Conditions

The standard (SSPC-Vis 3) illustrates seven initial conditions before surface preparation as follows: (See Notes 7.1, 7.2 and 7.3)

- Condition A Steel surface completely covered with adherent mill scale; little or no rust visible (Rust Grade A)
- Condition B Steel surface covered with both mill scale and rust (Rust Grade B).
- Condition C Steel surface completely covered with rust; little or no pitting visible (Rust Grade C).
- Condition D Steel surface completely covered with rust; pitting visible (Rust Grade D).
- Condition E Previously painted steel surface; light-colored paint applied over blast-cleaned surface, paint mostly intact.
- Condition F Previously painted steel surface; zinc-rich paint applied over blast-cleaned steel, paint mostly intact.
- Condition G Painting system applied over mill scale bearing steel; system thoroughly weathered, thoroughly blistered, or thoroughly stained.

4.2 End Condition

The standard illustrates surfaces prepared by several hand and power tools. The various degrees of cleaning and tools represented are:

- SSPC-SP 2 Hand Tool Cleaning by hand wire brush (SP2).
- SSPC-SP 3 Power Tool Cleaning by power wire brush (SP3/PWB).
- SSPC-SP 3 Power Tool Cleaning by sanding disc (SP3/SD).
- SSPC-SP 3 Power Tool Cleaning by needle guns (SP3/NG).
- SSPC-SP 11 Power Tool Cleaning to Bare Metal by rotary flaps or needle guns (See Note 7.4).
- SSPC-SP 11 Power Tool Cleaning to Bare Metal by restoration (re-exposure) of previously existing profile by non-woven disks (See Note 7.5).

5.4 Determine conformance with photograph

5.4.1 Compare the prepared surface with the photographs selected in Section 5.3 to evaluate the degree of cleaning and its conformance with the standard (SSPC-Vis 3).

5.4.2 The visual standard shall be used only in conjunction with the written SSPC surface preparation specifications, as it is based upon appearance only and does not address other factors necessary for compliance with the written specification.

5.4.3 Steel surfaces show variations in texture, shade, color, tone, pitting, flaking, mill scale, etc., which should be considered when making comparison with the reference photographs.

6. DISCLAIMER

Every precaution is taken to ensure that all information furnished in SSPC guides and standards is as accurate, complete, and useful as possible. The SSPC cannot assume any responsibility nor incur any obligation resulting from the use of any materials or methods specified therein, including guides and standards.

7. NOTES

7.1 Conditions A, B, C, and D are "new construction" surface conditions, and are defined in Section 3.1 of the SSPC Surface Preparation Commentary.

7.2 Conditions E, F, and G are "maintenance" surface conditions. Condition E and F represent surfaces having aged coatings originally applied over blast-cleaned steel. Condition G represents surfaces having aged coatings originally applied over mill scale bearing steel. Although many surfaces encountered in practice may not closely correspond to conditions E, F, or G, careful extrapolation of the photographs can still aid in determining conformance with the cleaning requirements.

7.3 Weld seams have been included with Conditions A, B, C, D, and F to depict the appearance of welds cleaned by power and hand tools prior to painting.

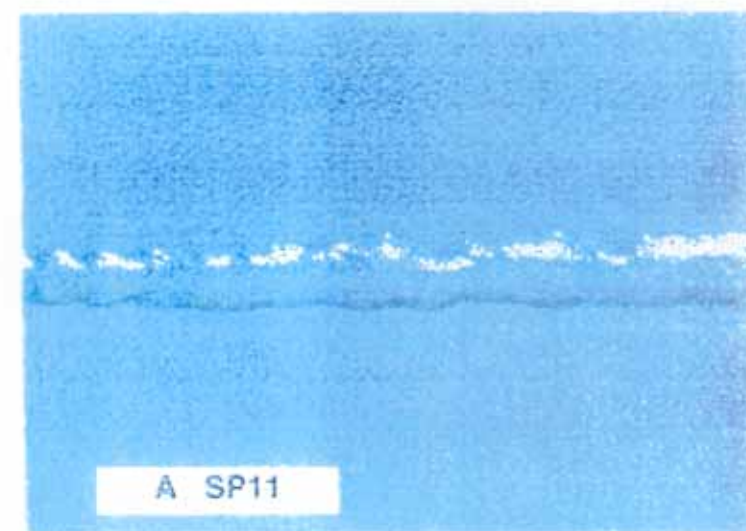
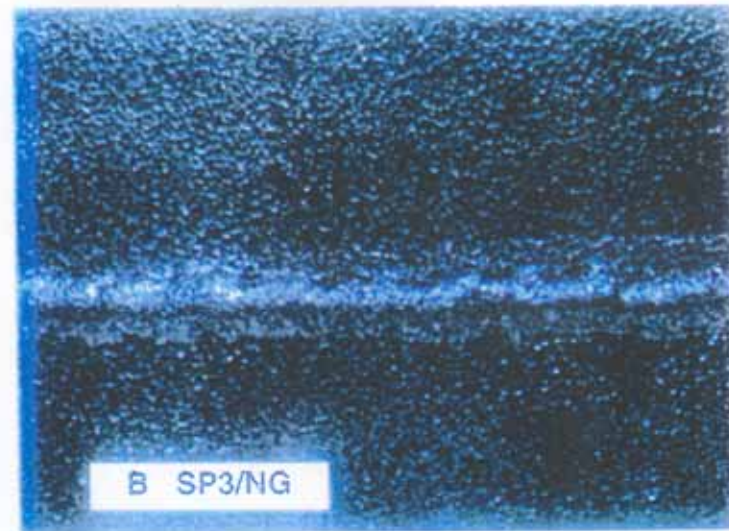
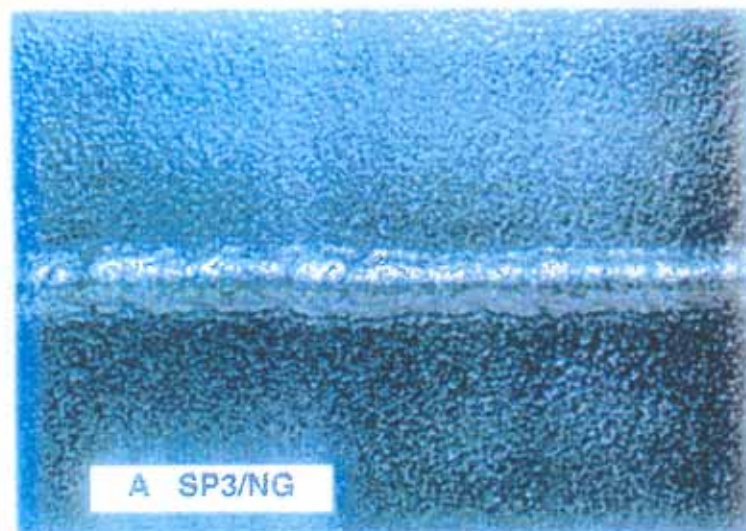
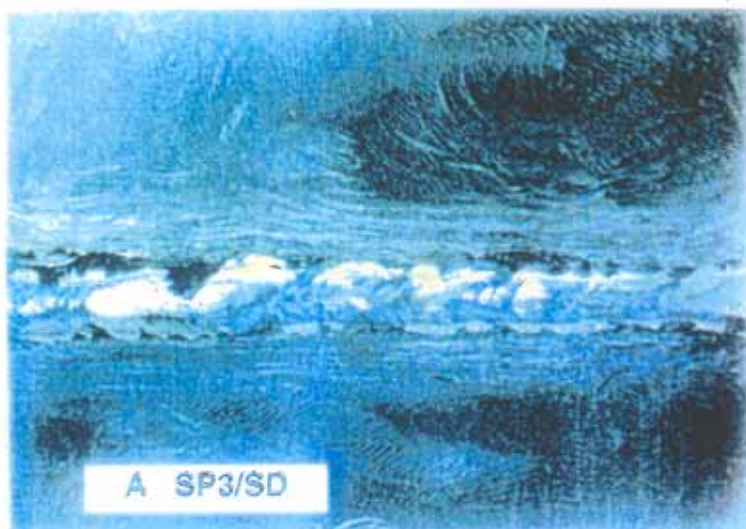
7.4 In some instances it may be necessary to reduce the roughness and depth of profile using non-woven disks or other tools.

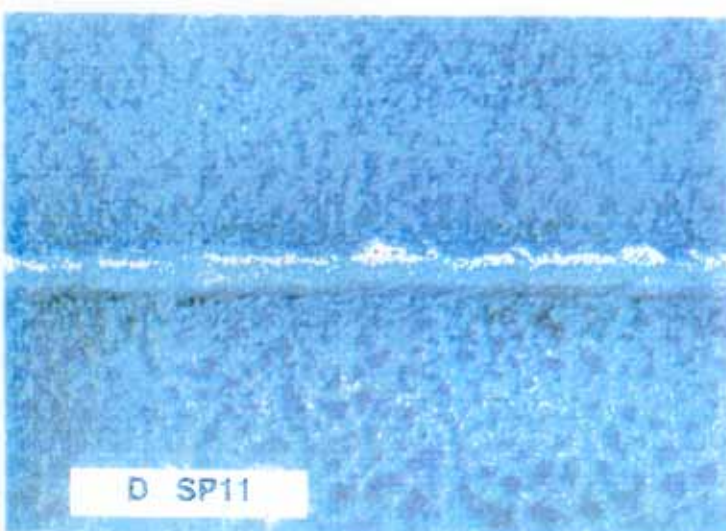
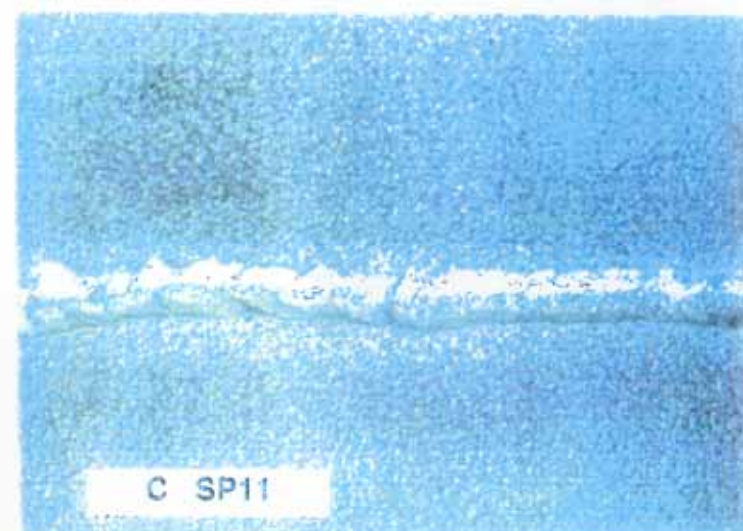
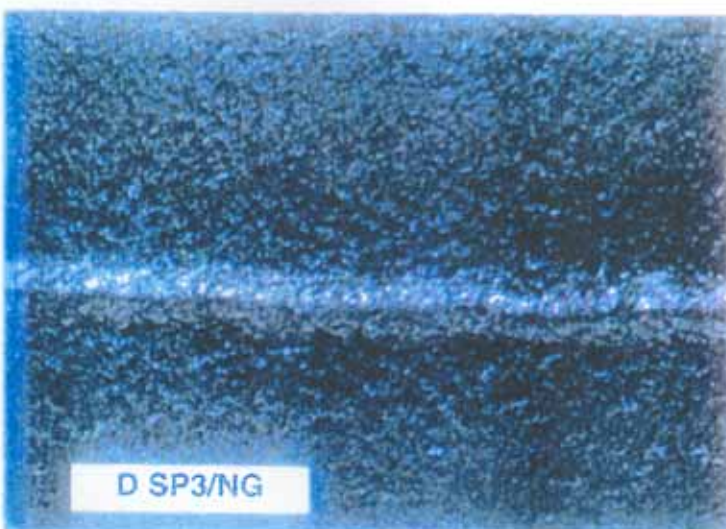
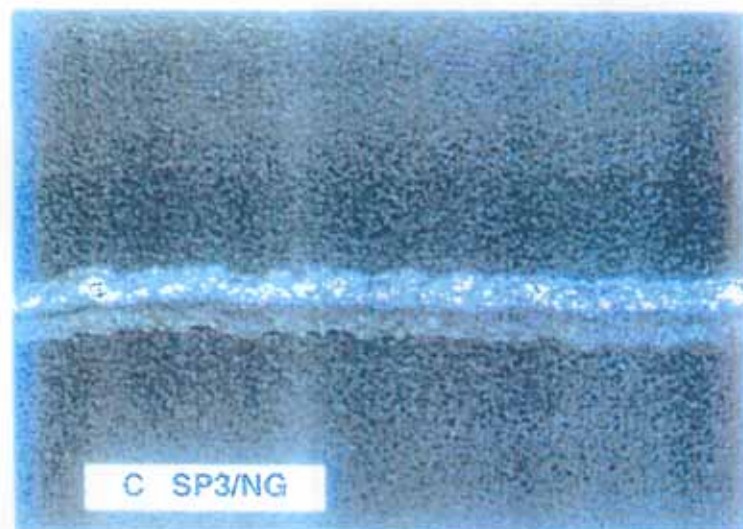
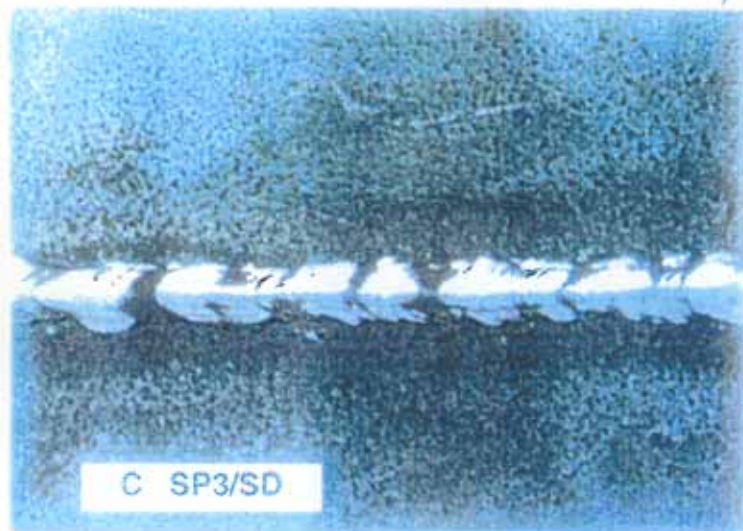
7.5 In using this approach, one should make sure that the surface meets the SSPC-SP 11 requirement for a 1-mil (25 micron) minimum profile.

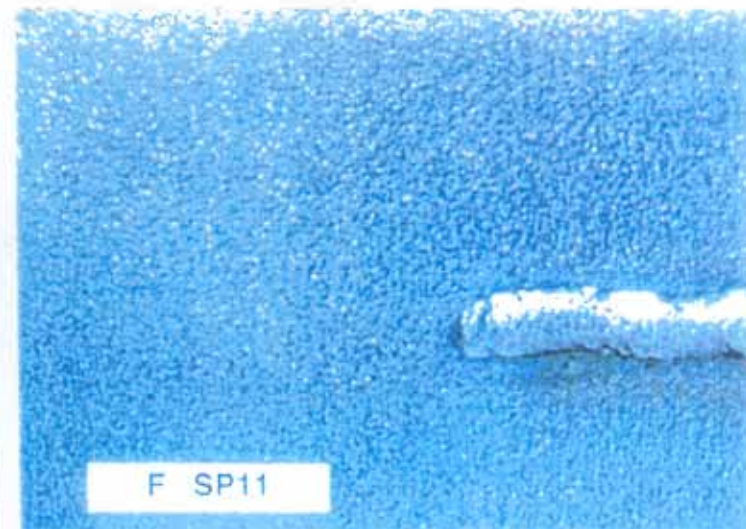
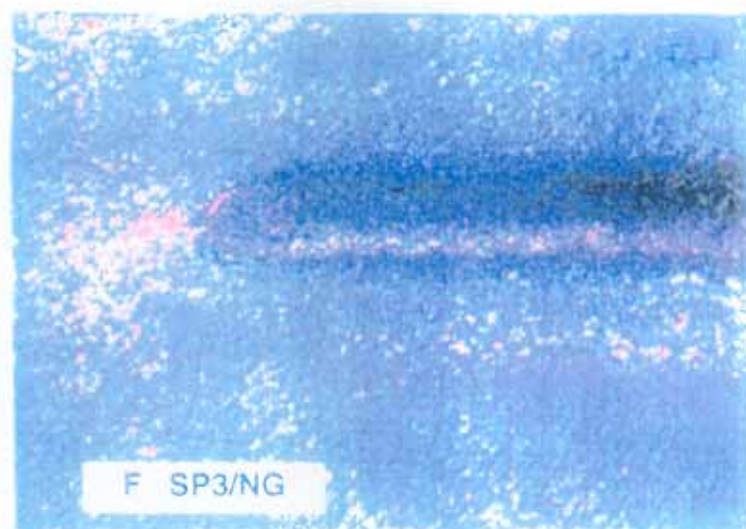
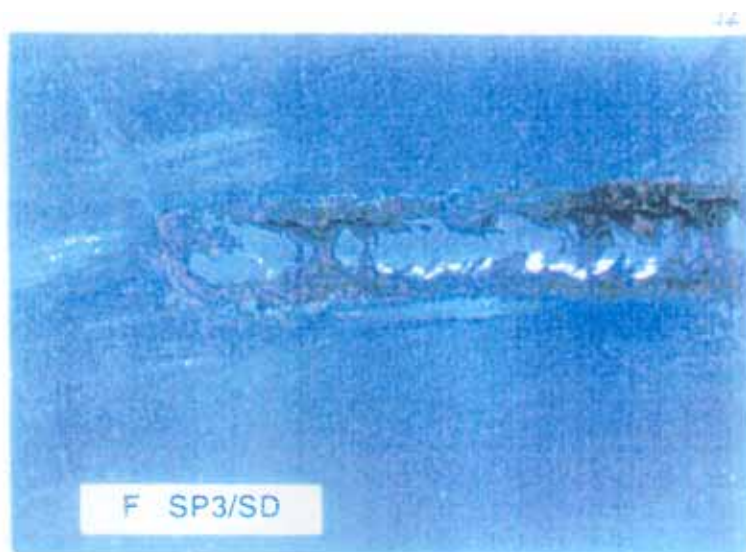
8. ACKNOWLEDGEMENTS

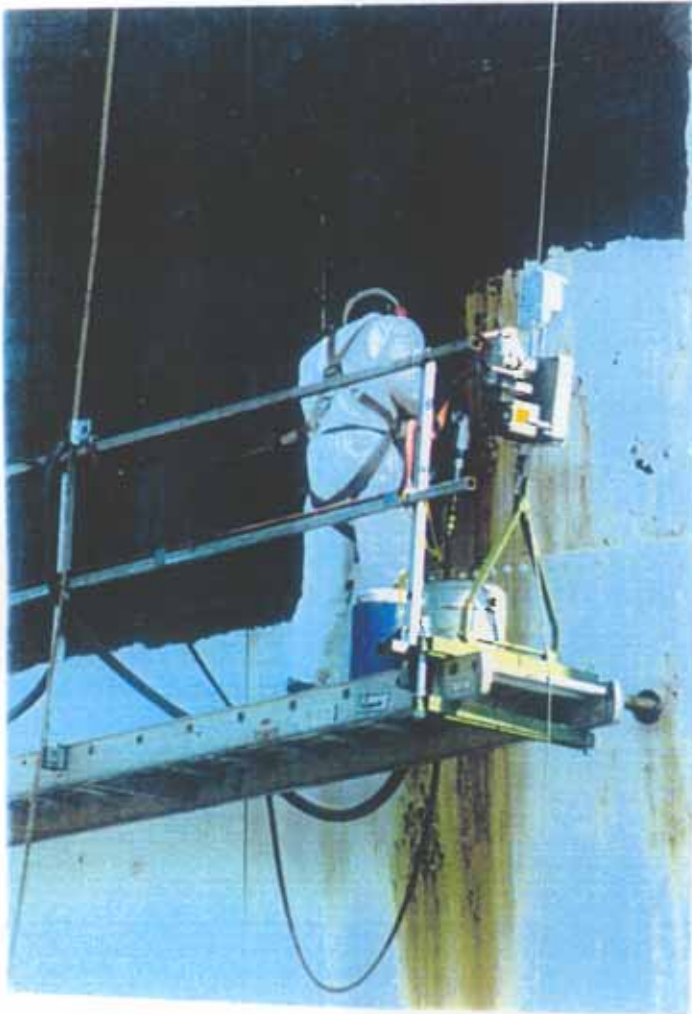
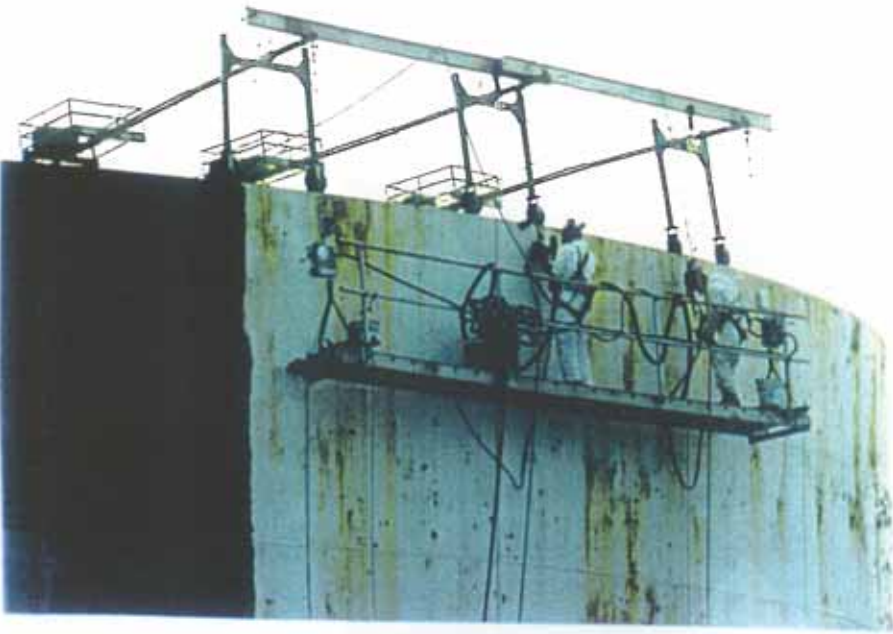
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