

be permanently fastened in any span until all main connections in adjacent spans have been completed; however, sufficient bracing shall be installed to meet the requirements of 501.06. Where erection bolts are used, they shall be not less than 16 mm (5/8-inch) diameter. Bolts for unpainted applications of A709 Grade 50W (A588) steel shall be A 325, Type 3. Erection bolts shall be A 307 bolts with lock washers or nuts tack welded to the bolt, or A 325 bolts tightened to a snug tight condition as described in 863.21 and having nuts tack welded to the bolt. End cross frames and end dams shall be erected in a manner that assures all bearing parts will remain in bearing contact.

The QCFS shall provide a cover letter documenting QCFS acceptance that shipping from the shop and shop storage has been performed per specification.

**863.29 Shop Painting.** This section contains requirements for the application and inspection of the shop prime coat as specified in the contract plans. The payment for the shop prime coat is included in the price bid for structural steel.

The QCPS shall be responsible for being familiar with the applicable paint specifications called for in the contract plans. Where specific shop Quality Control Points (QCP) are established in the specification, the QCPS shall comply with those requirements. If no shop prime coat QCPs are defined in the applicable paint specification, the QCPs in this section shall be the responsibility of the QCPS to assure that all QCPs meet specifications

Shop Prime coat shall be as specified in the contract documents.

Quality Control Points. Quality control points (QCP) are points in time when one phase of the work is complete and ready for inspection by the fabricator and QA Inspector. The next operational step shall not proceed unless the QCP has been accepted or QA inspection waived by the QA Inspector. At these points the Fabricator shall afford access to inspect all affected surfaces. If QA Inspection indicates a deficiency, that phase of the work shall be corrected in accordance with these specifications prior to beginning the next phase of work. Discovery of defective work or material after a Quality Control Point is past or failure of the final product before final acceptance, shall not in any way prevent rejection or obligate the Department to final acceptance.

<u>Quality Control Points (QCP)</u>	<u>(PURPOSE)</u>
1.) Shop Solvent Cleaning	Remove asphaltic cement, oil, grease salt, dirt, etc.
2.) Shop Grinding Flange Edges	Remove sharp corners, per AWS
3.) Shop Abrasive Blasting	Blasted surface to receive paint, including repair of fins, tears, slivers or sharp edges

- |                                 |   |
|---------------------------------|---|
| 4.) Shop Prime Coat Application | Check surface cleanliness apply prime coat<br>check coating thickness |
|---------------------------------|---|

Shop Solvent Cleaning (QCP # 1). The steel shall be solvent cleaned were necessary to remove all traces of asphaltic cement, oil, grease, diesel fuel deposits, and other soluble contaminants per SSPC-SP 1 Solvent Cleaning. Under no circumstances shall any abrasive blasting be done to areas with asphaltic cement, oil, grease, or diesel fuel deposits. Steel shall be allowed to dry before blast cleaning begins.

Shop Grinding Edges (QCP # 2). All corners of thermally cut or sheared edges shall have a 1/16 inch radius or equivalent flat surface at a suitable angle. Thermally cut material thicker than 1 1/2 inch shall have the sides ground to remove the heat effected zone, as necessary to achieve the specified surface profile.

Shop Abrasive Blasting (QCP #3). All steel to be painted shall be blast cleaned according to SSPC-SP10. Steel shall be maintained in a blast cleaned condition until it has received a prime coat of paint.

Metallized or galvanized steel, and other surfaces not intended to be painted, shall be covered and protected to prevent damage from blasting and painting operations. Any adjacent coatings damaged during the blasting operation shall be repaired at the fabricators expense.

The abrasive shall produce an angular profile. After each use and prior to reuse, the abrasive shall be cleaned of paint chips, rust, mill scale and other foreign material by equipment specifically designed for such cleaning.

Abrasives shall also be checked for oil contamination before use. A small sample of abrasives shall be added to ordinary tap water. Any detection of a oil film on the surface of the water shall be cause for rejection. The QCPS shall perform and record this test at the start of each shift.

The surface profile shall be a minimum of 40 mm (1.5 mils) and a maximum of 90 mm (3.5 mils). The QCPS shall record the surface profile with replica tape ASTM D 4417 Method C. For Automated blasting process: Five each recorded readings at random locations on one member for 20% of the main members or one beam per shift ( which ever is greater) and One(1) recorded reading for 10% of all secondary material. For Manual blasting process: five each recorded readings at random locations for each main member and one recorded reading for 25 percent of all secondary material.

Abrasives of a size suitable to develop the required surface profile shall be used. Any abrasive blasting which is done when the steel temperature is less than 3° C(5° F) above the dew point shall be re-blasted when the steel temperature is at least 3° C(5° F) above the dew point. The QCPS shall record temperature and dew point shall be recorded prior