Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.
SECRETARY

July 5, 2013

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: State Specifications and Estimates Office
Section **560**
Proposed Specification: **5600705 Coating New Structural Steel.**

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

These changes were proposed by Paul Vinik of the State Materials Office to update the language for current Department practice.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to SP965DS or daniel.scheer@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

Signature on file

Daniel Scheer, P.E.
State Specifications Engineer

DS/dt
Attachment
cc: Florida Transportation Builders' Assoc.
State Construction Engineer

**COATING NEW STRUCTURAL STEEL.**
**(REV 5-316-3-13)**

SUBARTICLE 560-7.5 (Page 745) is deleted and the following substituted:

**560-7.5 Soluble Salts Detection and Removal:** When using SSPC- Guide 15, Class A retrieval methods, determine the chloride, sulfate and nitrate concentrations on all steel surfaces using soluble salts test kits meeting the requirements of 560-2.4. Measure the concentration levels using the method described in SSPC-TU 4. Perform the tests after washing and after each applied coat of the coating system. Ensure the non-visible surface contaminant concentrations on blast-cleaned surfaces do not exceed 7 $g/gm^2$ for chlorides, 10 $g/cm^2$ for soluble ferrous iron, 17 $g/m^2$ for sulfates and 10 $\mu g/cm^2$ for nitrates. When using electronic conductivity meters, use meters meeting the requirements of 560-2.4 and measure the surface conductivity as prescribed by the manufacturer. The instrument shall be properly calibrated and maintained according to the manufacturer's recommendations. Ensure the surface conductivity does not exceed 70 micro-Siemens per centimeter squared. For either contaminant assessment method (salt test kits or conductivity meter) test three random locations in the first 1000 square feet and one random location for each subsequent 1000 square feet. When quality control documentation at a fixed location indicates 36 months of historical sequential soluble salt/conductivity levels below those specified above, soluble salt/conductivity testing frequency may be reduced to one test per ~~eight hour shift~~day.~~in the first 1000 square feet and one test every 2000 square feet of steel surface area thereafter.~~ When any concentration or conductivity measurement exceeds the levels given above, rewash the entire surface area and retest~~. If testing at a frequency of one test per shift and a contamination level exceeding those above is indicated, retest~~ all potentially contaminated steel to the satisfaction of the Engineer. If additional washing does not reduce the concentration to the acceptable level, a surface treatment or water additive may be used. Use a surface treatment or water additive that is approved by the coating system supplier and the Engineer.

SUBARTICLE 560-7.6 (Page 745) is deleted and the following substituted:

**560-7.6 Abrasive Blast Cleaning:** Prepare steel by abrasive blast cleaning to "Near-White" metal condition as defined in SSPC-SP 10. Use SSPC--VIS- 1 as an aid in establishing cleanliness. After abrasive blast cleaning, ensure the surface profile meets the requirements of the coating manufacturer's product data sheet. Determine the surface profile ~~using replica tape~~ in accordance with ASTM- D-4417, Method B or C.

Perform all abrasive blast cleaning within a containment system to ensure confinement of all particulates. Design the containment system to comply with all applicable Federal, State, and Local regulations. Ensure the abrasive blast cleaning does not produce holes, cause distortion, remove metal, or cause thinning of the substrate.

SUBARTICLE 560-9.7 (Page 747) is deleted and the following substituted:

**560-9.7 Stripe Coating:** Apply stripe coats for both intermediate and finish coats to achieve complete coverage and proper thickness on welds, corners, crevices, sharp edges, bolts, nuts, rivets, and rough or pitted surfaces. A stripe coat of ~~clear~~ translucent coating is not required. Do not apply subsequent coats until the previous stripe coat has cured per the manufacturer's product data sheet for recoating. Stripe coating is not required for the inside surface area of all steel box girders.

**COATING NEW STRUCTURAL STEEL.**
**(REV 6-3-13)**

SUBARTICLE 560-7.5 (Page 745) is deleted and the following substituted:

**560-7.5 Soluble Salts Detection and Removal:** When using SSPC Guide 15, Class A retrieval methods, determine the chloride, sulfate and nitrate concentrations on all steel surfaces using soluble salts test kits meeting the requirements of 560-2.4. Measure the concentration levels using the method described in SSPC-TU 4. Perform the tests after washing and after each applied coat of the coating system. Ensure the non-visible surface contaminant concentrations on blast-cleaned surfaces do not exceed 7 $g/gm^2$ for chlorides, 10 $g/cm^2$ for soluble ferrous iron, 17 $g/m^2$ for sulfates and 10 $\mu g/cm^2$ for nitrates. When using electronic conductivity meters, use meters meeting the requirements of 560-2.4 and measure the surface conductivity as prescribed by the manufacturer. The instrument shall be properly calibrated and maintained according to the manufacturer's recommendations. Ensure the surface conductivity does not exceed 70 micro-Siemens per centimeter squared. For either contaminant assessment method (salt test kits or conductivity meter) test three random locations in the first 1000 square feet and one random location for each subsequent 1000 square feet. When quality control documentation at a fixed location indicates 36 months of historical sequential soluble salt/conductivity levels below those specified above, soluble salt/conductivity testing frequency may be reduced to one test per day. When any concentration or conductivity measurement exceeds the levels given above, rewash the entire surface area and retest all potentially contaminated steel to the satisfaction of the Engineer. If additional washing does not reduce the concentration to the acceptable level, a surface treatment or water additive may be used. Use a surface treatment or water additive that is approved by the coating system supplier and the Engineer.

SUBARTICLE 560-7.6 (Page 745) is deleted and the following substituted:

**560-7.6 Abrasive Blast Cleaning:** Prepare steel by abrasive blast cleaning to "Near-White" metal condition as defined in SSPC-SP 10. Use SSPC-VIS 1 as an aid in establishing cleanliness. After abrasive blast cleaning, ensure the surface profile meets the requirements of the coating manufacturer's product data sheet. Determine the surface profile in accordance with ASTM D4417, Method B or C.

Perform all abrasive blast cleaning within a containment system to ensure confinement of all particulates. Design the containment system to comply with all applicable Federal, State, and Local regulations. Ensure the abrasive blast cleaning does not produce holes, cause distortion, remove metal, or cause thinning of the substrate.

SUBARTICLE 560-9.7 (Page 747) is deleted and the following substituted:

**560-9.7 Stripe Coating:** Apply stripe coats for both intermediate and finish coats to achieve complete coverage and proper thickness on welds, corners, crevices, sharp edges, bolts, nuts, rivets, and rough or pitted surfaces. A stripe coat of translucent coating is not required. Do not apply subsequent coats until the previous stripe coat has cured per the manufacturer's product data sheet for recoating. Stripe coating is not required for the inside surface area of all steel box girders.