



Florida Department of Transportation

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MEMORANDUM

DATE: November 5, 2015

TO: Specification Review Distribution List

FROM: Daniel Scheer, P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **5610401 Coating Existing Structural Steel.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Amy Tootle of the State Construction Office to require all construction-related documentation to be submitted by electronic means for consistency with the State Construction Office e-Construction initiative.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at <http://www2.dot.state.fl.us/ProgramManagement/Development/IndustryReview.aspx> . Comments received after **December 3, 2015**, may not be considered. Your input is encouraged.

DS/dt
Attachment

COATING EXISTING STRUCTURAL STEEL.
(REV 10-14-15)

SUBARTICLE 561-4.1 is deleted and the following substituted:

561-4.1 Field Preparation and Application: ~~Provide~~ Submit a current Corporate Q C Plan approved by SSPC under the SSPC QP1 and SSPC QP2 certifications as appropriate and a site specific Coating Plan to the Engineer at least 14 calendar days prior to beginning coatings work. Do not begin coatings work until the site specific Coating Plan has been approved by the Engineer.

Prepare a traffic control plan for each phase of construction activities signed and sealed by the Contractor's Engineer of Record in accordance with the Roadway Plans Preparation Manual. Do not begin work until the traffic control plan is approved by the Engineer. Maintain traffic in accordance with Section 102.

For work over navigable waters, submit a work plan to the United States Coast Guard including any scheduled restrictions to navigation channels or marine traffic. Obtain Coast Guard approval at least 30 days in advance of any restrictions.

SUBARTICLE 561-10.1 is deleted and the following substituted:

561-10.1 General: Establish plans and programs to protect the environment, public, contractor employees, other workers, and property from overspray, exposure to toxic heavy metals and the release and emission of hazardous materials and nuisance dusts. Include in such plans and programs a procedure for the receipt, processing, evaluation and timely written response for claims by the public for damage resulting from the foregoing work. ~~Provide~~ Submit ~~to~~ the Department ~~with copies of~~ any written response which denies such damage claims. Conduct all coating application and removal operations in compliance with EPA, OSHA, and other applicable Federal, State and local regulations. ~~Provide~~ Submit a contingency plan for the remediation of water and land in the event of contamination by solid or liquid paint and contaminated water.

SUBARTICLE 561-10.2.3.3 is deleted and the following substituted:

561-10.2.3.3 Regulated Area: Establish a regulated area around the work site to prohibit unauthorized persons from areas where exposure to hazardous airborne metals may exceed the following action levels:

Airborne Metals	Action Level
Lead	30 µg/m ³
Cadmium	2.5 µg/m ³
Arsenic	5 µg/m ³
Hexavalent Chromium (Cr ⁶⁺)	2.5 µg/m ³

Conduct monitoring in accordance with the National Institute for Occupational Safety and Health (NIOSH) procedures upon initiation of dust producing operations and submit the test results to the Engineer within 72 hours of sampling. Report sample results as eight-hour Time Weighted Averages (TWA). Reestablish the regulated area and perform additional sampling when the results exceed the action levels or when directed by the Engineer. ~~Document~~ ~~Record~~ all pertinent data ~~in a field logbook~~. Position air-sampling pumps around the project perimeter where the public or personnel can approach the work area. Place sampler inlets at breathing height. Clearly mark the regulated area by the use of warning signs, rope, barrier tape, or temporary construction fencing.

SUBARTICLE 561-10.3 is deleted and the following substituted:

561-10.3 Containment System: Submit a written containment system design plan in accordance with this section and the contract documents at the pre-construction conference or as directed by the Engineer which clearly describes the proposed containment system applicable to the intended removal method and in accordance with the requirements outlined herein and SSPC Guide 6, Guide for Containing Debris Generated During Paint Removal Activities. Ensure the plan includes, but is not limited to, removal method; methods for collecting debris; and containment enclosure components. Use fire retardant materials. ~~Provide~~ ~~Submit~~ containment drawings, calculations, assumptions, ventilation criteria if applicable, and a structural analysis that verifies the existing structure can withstand the additional dead, live and wind loads imposed by the containment system, signed and sealed by a Specialty Engineer. However, for more complex structures incorporating cables stayed, suspension, or truss designs, the analysis must be performed by the Contractor's Engineer of Record qualified in Type Work Category 4.3, Complex Bridge Design. ~~Provide~~ ~~Submit~~ a contingency plan addressing natural weather events such as tropical storms and hurricanes. Ensure the lighting inside the containment is in accordance with SSPC Guide 12, Guide for Illumination of Industrial Painting Projects. Provide lighting to a minimum intensity of 10 ft-cd for general, 20 ft-cd for work, and 50 ft-cd for inspection. All drawings and calculations must be submitted and accepted before any work begins. Include a clear description of the ventilation system components and information including the fan curve and design point on the proposed dust collector. Design to provide ventilation according to the notes provided in SSPC Guide 6: 100 feet per minute for cross draft and 50-60 feet per minute for downdraft.

Isolate the immediate area of the structure to ensure compliance with current and permit requirements for air, water, soil, and pollution prevention. Protect the containment system from vehicular and pedestrian traffic. Ensure paint, paint chips, or other debris will not fall outside of the containment area under any circumstances. Repair any damage created by fastening, bracing, or handling the scaffolding and staging. If a suspended platform is constructed, use rigid or flexible materials as needed to create an air and dust impenetrable enclosure. Verify that the platform and its components are designed and constructed to support at least four times its maximum intended load without failure, with wire cables capable of supporting at least six times their maximum intended load without failure. Strictly comply with all applicable OSHA regulations regarding scaffolding. The category and class of containment shall be as required in the Contract Documents.

SUBARTICLE 561-10.4 is deleted and the following substituted:

561-10.4 Protection of Adjacent Areas: Protect all areas adjacent to abrasive blast cleaning, including machinery and deck grating. Before the commencement of any cleaning and coating operations, ~~provide~~ submit a control plan for the protection of adjacent surfaces from damage by nearby blasting and coating to the Engineer for review. Repair any damage to adjacent areas. The repair procedure must be submitted to the Engineer for acceptance prior to any remediation.

SUBARTICLES 561-11.3 thru 561-11.6 are deleted and the following substituted:

561-11.3 Testing and Analysis: Laboratory analyses for all waste stream and environmental samples shall be conducted by an EPA certified, independent laboratory with an approved Quality Assurance Plan. Laboratory analyses for worker monitoring and regulated area samples shall be conducted by an American Industrial Hygiene Association (AIHA) metals accredited laboratory. ~~Provide a copy of~~ Submit all sampling and test reports no later than 72 hours after collection of samples.

561-11.4 Waste Identification: Collect samples in accordance with EPA SW 846, Test Methods for Evaluating Solid Waste - Physical/Chemical Methods. Use a random and representative sampling technique. Collect a minimum of four representative samples of each waste stream. These waste streams include, but are not limited to, water, paint chips, dust, and paint chips mixed with disposable abrasives and debris. Complete the initial sampling of each waste stream immediately upon filling the first drum, but do not allow waste to accumulate for longer than 7 days before sampling.

After the representative samples are collected, send them immediately to the EPA certified laboratory for analysis. Unless otherwise directed by the Engineer, required by State regulations, or required by the waste recycling or disposal facility, once each waste stream is sampled, tested, and classified, additional sampling and analysis are not required for subsequent shipments unless the waste stream changes. Submit samples to an approved laboratory to be tested for arsenic, barium, cadmium, hexavalent chromium, lead, mercury, selenium, and silver in accordance with EPA Method 3050 and Method 6010 (content) and EPA Method 1311, Toxicity Characteristics Leaching Procedures (TCLP). Clearly label each sample with sample number, date and time of sampling, name of collector, and location of collection.

Maintain chain of custody forms for each sample. Enter each sample on a sample analysis request form. ~~Enter~~ Record sample numbers, type of waste, amount of each sample, distribution of samples, signature and all other information ~~into field logbook~~.

561-11.5 Waste Storage: Collect waste from the control devices, equipment, and all work surfaces on a daily basis. Keep hazardous and non-hazardous waste separate. Do not mix blasting debris with any other type of waste. Place waste in approved storage drums.

Locate all hazardous waste within a regulated area. The maximum weight for each drum, when filled, is 821 pounds. Properly seal and label all drums. Transport waste storage drums to a secured, marked, temporary storage area. Locate the temporary storage area on well-drained ground not susceptible to flooding or storm water run-off. Place drums on a pallet and cover with fiber reinforced, impermeable tarpaulins. Store drums no more than two drums wide and two drums high. Arrange drums so that labels are easily readable. Do not store waste in the temporary storage area longer than 90 days.

561-11.6 Waste Disposal: Transport, treat and dispose of all hazardous and non-hazardous waste. Notify the Engineer a minimum of three weeks prior to the date of shipment of any waste to an off- site facility. ~~Provide-Submit to~~ the Engineer ~~with~~ documentation that the receiving disposal facilities are properly licensed. ~~Provide-Submit~~ manifests for all hazardous and non-hazardous waste shipments. Identify any waste disposal subcontractors and ~~provide~~ submit a copy of verification of their licensing to perform waste disposal and transport operations.