$$563.00A

**Section 563. – PAINTING**

Revised 10 July 2014

563.01. Add the following:

This work includes the containment and collection of surface preparation debris, disposal of surface preparation debris (hazardous and contaminated), and a worker health protection program (including decontamination facilities). This work also includes the removal, shop painting and placement of the light posts.

563.02. Add the following:

Thermal sprayed coating 717.19

563.03. Add the following:

**(h)** Design calculations, manufacturer's specifications, and certifications for the containment system's working platform. Provide a platform that is firm and stable, designed to support workers, authorized persons, spent abrasive material, and equipment during all phases of construction. Furnish calculations and specifications stating the proposed containment system's load bearing capacity and show that the system will support any imposed loads.

Maintain all minimum vertical and horizontal clearances for construction operations as approved by the CO.

Use a certified shop for all shop painting with a minimum certification SSPC-QP3, “Shop Painting Certification Program”. Submit proof of certification prior to start with the work.

$$563.03A

Add the following after Subsection 563.03:

**563.03A SSPC Painting Contractor Certification Program (PCCP) Requirements.** Certify all contractors and subcontractors that perform surface preparation, paint application, and any related work involving containment and collection of surface preparation debris, disposal of surface preparation debris, and a worker health protection program (including decontamination facilities) to the requirements of SSPC-QP 1. In addition, certify all contractors and subcontractors engaged in lead paint removal and any other related work to the requirements of SSPC-QP 2. Obtain certification at the time of bid and maintain certification for the respective work for the duration of the project. Submit documentation of certification at time of bid. If a contractor’s certification expires, the company will not be allowed to perform any work until the certification is reissued. Requests for extension of time for any delay to the completion of the project due to in active certification will not be considered and liquidated damages will apply.

Notify the CO of any change in contractor certification status.

**563.03B Containment System, Paint Removal, and Waste Disposal.** Fully enclose all surface preparation and coatings application operations to eliminate all airborne blast debris, dust, and coatings. Comply with SSPC - Guide 6 "Guide for Containing Debris Generated during Paint Removal Operations", latest revision. Furnish a containment enclosure that provides dust and debris containment. Provide air impenetrable walls and negative air achieved by forced air flow.

Maintain an average negative pressure of 0.03-inch water column inside the enclosure (as measured by manometer or magneholic gage) during blasting and blow down operations.

Design air flow inside the enclosure to meet Occupational Safety & Health Administration

(OSHA) Standards. Provide containment and ventilation to allow for the maximum practical reduction in exposure to lead dust for workers inside the containment. Submit a list of the equipment, including operating capacities and manufacturer's instructions to the CO.

Handle all waste materials (surface preparation debris) as hazardous waste until tested and proven to be non-hazardous. Collect, contain and dispose of any accumulated debris in a manner that will prevent its release into the environment and in an effective way to protect workers from exposure to hazardous materials. Immediately correct any visible emissions from the containment enclosure. Ensure any emissions from the containment enclosure conform to Federal, state, and local air quality standards.

Take a minimum of four representative soil samples, one at each corner of the work site in accordance with SSPC - Guide 6. Take samples and perform test analysis on samples prior to work start-up, during surface preparation and paint application operations, and after work operations are completed. If elevated levels of toxic heavy metals (e.g., lead, chrome, cadmium) are found in baseline soil samples, obtain additional samples and retain for future analysis in case questions arise regarding the integrity of the containment during the project.

Clean up any spilled waste materials immediately and take all necessary actions to remedy resulting soil and water contamination.

Comply with SSPC - Guide 7 "Guide for the Disposal of Lead-Contaminated Surface Preparation Debris", latest revision. Seal collected waste materials in leak-proof drums. Place only spent abrasives, paint particles, and blast debris in the drums. Provide drums that are in new condition and approved for use by the CO. Clearly identify each drum in accordance with all Federal, state, and local rules and regulations, with the bridge number, the contract number, the contractor's name, the contents, and the date waste material accumulation began.

Obtain all necessary permits for storage, transport, characterization and disposal of waste from the project.

Store contaminated debris in accordance with the Federal, state, and local requirements. Store drums containing contaminated debris in a locked sea cargo trailer within a secured staging area.

Obtain the approval of the CO prior to storing drums in the trailer. Prevent the entry of unauthorized persons, livestock, or wildlife onto the staging area and the lead work area. Post warning signs with clearly visible legends, "DANGER - AUTHORIZED PERSONNEL ONLY," easily visible from all routinely used approaches to the staging area and lead work area and make signs obvious both to the Contractor or any bystanders.

Sample and test the waste material, to determine if it is hazardous, according to the Toxicity Characteristic Leaching Procedure (TCLP), EPA Method 1311 of SW 846. Test waste for lead and other elements listed in Table 1, Toxicity Levels For Metals, in the SSPC - Guide 7. Supply the CO with a split of each waste material sample.

If waste material is determined to be hazardous, obtain the EPA Identification Number from the

CO, and prepare a manifest of all hazardous waste to be transported to an approved waste storage site. Prepare the manifest according to all Federal and state regulations. Furnish the CO with a certificate or manifest indicating the weight and the number of drums of waste to be disposed.

Provide proof of acceptance, at an approved disposal site, including all information required by the state and local regulations. Ensure that the hazardous waste hauler is licensed and has an EPA Identification Number. Conform to all Federal, state, and local regulations regarding the maximum volume of hazardous waste which may be stored on the site. Do not store the waste materials on the site for over 90 days. Do not treat hazardous waste on site.

If lead or any of the elements listed in Table 1, Toxicity Levels for Metals, in the SSPC - Guide 7 does not meet or exceed the permissible level of concentration, as measured by the Toxicity

Characteristic Leaching Procedure, dispose of the waste material as an industrial solid waste according to all applicable Federal, state, and local regulations. Dispose of waste at an approved facility. Provide the CO with an authorization prior to disposal.

Submit a worker health and protection plan prepared by a Certified Industrial Hygienist (CIH), certified by the American Industrial Hygienist Association, and in accordance with all Federal, state, and local regulations. Address the following in the worker health and protection plan:

* Work practices;
* Engineering controls;
* Administrative controls;
* Training;
* Medical surveillance;
* Hazard identification;
* Protecting clothing and respirator selection;
* Handling containers;
* Emergency responses;
* Decontamination;
* Illumination;
* Sanitation; and
* Site control.

Train all workers and persons exposed to painting and/or cleaning operations.

Provide documentation of workers safety training and education that requires instruction in recognizing and avoiding unsafe conditions and hazards, conforming to OSHA 29 CFR 1910 and OSHA 29 CFR 1926.

Require all workers scheduled to receive lead exposure at or above the action level on any day during the project duration to have an initial medical surveillance consisting of blood sampling and analysis for lead and zinc protoporphyrin levels (an indicator of lead levels in the blood); provide follow-up blood tests for any worker whose initial medical surveillance results were at the permissible exposure limit or more; and furnish thorough medical examinations for all workers who are or may be exposed at or above the action level for 30 or more days in any 12- month period. Analysis of blood should be performed only by OSHA-approved laboratories.

Make all initial and follow-up medical surveillance available to workers and the CO within 48 hours of a worker's exposure. Do not use prophylactic or preventive chelation to keep blood lead levels down while workers are on the job.

Designate a competent person, knowledgeable about protection of workers from the hazards of lead exposure, responsible for and having the authority to remedy any hazardous situation. Make this person responsible for ensuring human safety and have him submit written certification at completion of the project that the Plans fully complied with all regulations and were fully implemented.

563.04. Add the following:

Repair any damages caused to the bridge railing, or bridge structure during these operations.

Repair metallized surfaces damaged after shipment in accordance with ASTM A 780.

563.05. Add the following:

Prepare the surface by removing the existing lead-containing paint from steel surfaces.

563.06. Add the following:

Stripe all edges, corners, rivets, bolts, welds, and sharp corners using a suitable brush before applying the respective intermediate and top coats of paint. Extend striping 1 inch from the edge and apply the full coat before the striping cures completely. Application of the intermediate and the final coats of paint without an enclosure is acceptable if paint over-spray and spillage is prevented.

563.07(a)(1). Add the following:

For painting, use system 2 from Table 563-1. Obtain all coatings from the same manufacturer. Furnish a top coat paint conforming to Federal Standard 595 Color FS 36373 for traffic railing. Use a top coat paint conforming to Federal Standard 595 Color FS 24325 for luminaire and FS 24260 for steel girders, diaphragms and bearings. Submit three top coat paint sample panel not less than 1 foot by 1 foot, prepared using the same methods and materials required for the actual work, to the CO for approval before beginning production.

Do not paint areas where there are metal-to-metal contact surfaces.

Furnish touch-up paint to repair marred surfaces and any areas damaged to any prepainted element due to shipping, handling, and erection of the bridge and components.

Furnish one gallon of top-coat paint and the approved final paint formula to the CO.

563.07(b)(1). Delete the first, second, and third paragraphs and substitute the following:

**(1) Surfaces with all existing paint removed.** Remove all dirt, mill scale, rust, paint, and other foreign material from all exposed steel surfaces according to SSPC-SP-5, white metal blast cleaning. Blast clean with angular steel grit or chilled iron grit abrasives. Recycle abrasives to minimize waste material and monitor cleanliness and angularity of recycled abrasive. Continuously maintain a dry abrasive, free of oils, grease, and other harmful substances. For the paint system 1, produce an anchor profile height of 80 to 250 feet, with an anchor tooth profile that is sharp, clean and free of friable material with minimal peeling effect. Provide anchor profile height not less than that recommended by the manufacturer’s product data sheet for the coating system specified. Measure anchor profile according to ASTM D4417 (Replica Tape Method). Retain replica tape as quality assurance records.

Perform a test blast on a portable steel plate (measuring approximately 1-foot by 1-foot) representative of those steel surfaces cleaned throughout the structure. Begin blast cleaning only after the CO has inspected and approved the test blast plate. Preserve and protect the test blast plate as a job standard with a clear sealer and photograph for documentation and project quality control.

Provide respiratory protection and personal protective clothing to all workers and persons entering the containment and painting areas that are exposed to hazardous materials in accordance to OSHA 29 CFR 1926.62. Use OSHA approved protective clothing and equipment.