Scotts Valley Water District

Specification for the Coating Rehabilitation of the Exterior Roof of the Sequoia Reservoir

PART IV - I COATINGS COATING REHABILITATION OF RESERVOIR EXTERIOR

SECTION 1 - Scope of Work

1) The Contractor shall provide all labor, materials, equipment, and incidentals required to remove all the existing exterior roof coating and appurtenances with a three-coat system. The tank will remain online during the scope of work. The Contractor shall abrasive blast using a water ring. The ground around the tank shall have plastic placed around the tank base to capture spent abrasives. The Contractor shall use a rust inhibitor to prevent flash rusting. The Contractor shall remove the existing anode covers and install a plug to prevent any contamination of the potable water. The center and perimeter vents will be completely covered with a screen capable of filtering particle sizes to 0.3 microns to prevent any contamination to the water and removed at the end of the day to prevent implosion.

Sequoia Reservoir
Year Built: 1983
Diameter: 85'
Shell Height: 32'
Capacity: 1.25 Mg. Gallons

2) The Contractor shall dispose of all wastes from abrasive blasting and any other wastes or debris generated during work. The Contractor shall sample, and test wastes as required by applicable regulatory agencies, and as necessary for classification of wastes prior to disposal. The Contractor shall bear all costs for waste sampling, testing, accumulation, transport, and disposal, including the cost for wastes classified as hazardous and non-hazardous.

3) The Contractor should expect that the entire surface under the existing coatings to be corroded or having mill scale and shall provide for such conditions, accordingly, including complete removal of such materials down to bare steel and providing "Near White Metal Blast Cleaning" (SSPC/SP # 10) to allow for proper adhesion of the interior coating system.

4) The District shall conduct a one-year anniversary inspection

5) At least two days prior to start of work, the Contractor shall arrange with the District for a pre-preparation conference at the job site to ensure that all parties are familiar with the entire project, including specifications and the manufacturer's printed application instructions.

SECTION 2 - Governing Standards

1) The following standards (including the most recent update or version) shall govern the work unless specified otherwise in these specifications:

SSPC-Vol.1,	Steel Structures Painting Manual, Good Painting Practice.
SSPC-Vol.2,	Steel Structures Painting Manual, Systems and Specifications.
SSPC-SP 1	Solvent Cleaning
SSPC-SP 2	Hand Tool Cleaning
SSPC-SP 3	Power Tool Cleaning
SSPC-SP 5	White Metal Blast Cleaning
SSPC-SP Guide 11	Stripe Coating
SSPC-SP 7	Brush-Off Blast Cleaning
SSPC-SP 10	Near White Blast Cleaning
SSPC-SP 11	Power Tool Cleaning to Bare Metal
SSPC-AB 1	Mineral and Slag Abrasives
SSPC-PA 1	Shop, Field and Maintenance Painting
SSPS-PA Guide 3	Guide to Safety in Paint Application
SSPS-PA Guide 12	Lighting
SSPC-Guide to Vis 1-89	Visual Standard for Abrasive Blast Cleaned Steel
SSPC-V15 (3-93)	Visual Standard for Power & Hand-Tool Cleaned Steel
AWWA D102-97	Standard for Painting Steel Water-Storage Tanks
AWWA C652 ISO-8502-3	Disinfection of Water Storage Facilities. Preparation of Steel Substrates (Class 2)

All applicable State and Federal OSHA safety standards.

SECTION 3 - Submittals

2) The Contractor shall provide a separate submittal for each material to be used in the work. At a minimum provide submittals for Abrasive materials, Paint systems, Thinners, and any other additives.

3) The Contractor shall include the following data in the interior coating system submittal:

   a. Weight in pounds/gallon – ASTM D-2196

   b. % solids by volume – ASTM D-2369

   c. Percent solids by weight – ASTM D-2369

   d. Air cure dry time to re-coat – ASTM D-1640

   e. Minimum adhesion to steel substrate – ASTM D-4541 using a type II instrument (Minimum acceptable adhesion shall be 800 p.s.i.).

   f. Manufacturer's batch numbers and dates of manufacture for materials to be furnished as part of this project.

4) The Contractor shall include technical data documenting that the material to be provided complies with these specifications. Submittals will not be accepted until all requirements of this specification have been confirmed.

5) The Contractor shall include the following data in the manufacturer's recommended handling and installation instructions for the proposed paint system submittal:

   a. Storage – including maximum and minimum storage temperatures.

   b. Surface preparation

   c. Coating repair

   d. Application equipment

   e. Abrasive

   f. Rust Inhibitor

g. Mixing and application of coating system – including a table of minimum and maximum time to re-coat as a function of temperature

h. Curing – including curing time required before holiday testing, and curing time required before immersion as function of temperature and coating thickness. Minimum and maximum re-coat times.

i. Abrasive containment System

j. Acceptable temperatures at the time of application.

k. Health and Safety Plan

l. Fire Prevention Plan.

m. Plan to keep reservoir online and prevent foreign material or contamination from entering the reservoir.

6) The Contractor shall include the following data in the equipment submittal:

a. Details of vacuum system for removing dust and abrasive from abrasive blast cleaned surfaces.

b. The manufacturer's latest written operation instructions including recommendations for air filter maintenance and change interval for air compressors used for work.

7) The Contractor shall include the following data in the report submittal:

a. Actual weight of blast cleaning abrasive used for field abrasive blast cleaning, submitted within 24 hours after blasting is completed.

b. Quantity of coating material used for each coat, submitted within 24 hours after completion of each coat.

c. Name of laboratories proposed to be used to test waste and reservoirs water prior to testing any materials.

d. Laboratory test results for representative waste samples prior to removing any waste materials from the job site. At a minimum, the samples shall be tested for total concentrations of the 17 metals identified in Title 22 for comparison to Total Threshold Limit Concentrations (TTLC) values. The California Waste Extraction Test (WET) shall be performed for each analyte of each sample for which the total concentration exceeds 10 times the STLC value, if any, as specified in Title 22. Toxic Characteristic Leaching Procedure (TCLP) testing shall be performed for each analyte of each sample for which the total concentration exceeds 20 times the TCLP values, if any, specified in

the Federal Resource Conservation and Recovery Act. Reactivity, corrosively, and Ignitability testing shall be performed as required by Title 22 and/or the District or representative of the disposal facility.

e. Receipts from disposal site for all waste. Receipts shall identify disposed material and source, show quantity of disposed material in tons or cubic yards, and show method used for final disposition as buried, incinerated, and chemically treated and/or other means.

f. Quantity of thinner used for each coat and total amount used.

8) The Contractor shall include the following data in the disposal plan submittal:

a. Certification that the materials disposal plan complies with all applicable requirements of the Federal Resource Conservation and Recovery Act; Title 22 and Title 26 of the California Administrative Code; and other applicable regulations of local, state, and federal agencies having jurisdiction over the disposal of spent abrasive blast media, removed coating materials, and other waste, whether hazardous or non-hazardous.

b. The name and Environmental Laboratory Accreditation Program Certificate number of laboratory that will sample and test spent abrasive blast media and removed coating materials. Include statement of the laboratory's certified testing areas and analyses that the laboratory is qualified to perform.

c. Written permission to dispose of material from disposal site representative. Include name, address, and telephone number of disposal site and of representative.

d. The District shall provide written acceptance of the disposal plan prior to disposal of any waste.

SECTION 4 - Quality Assurance

A. The District has retained a coating inspection firm to oversee all quality control related to coating operations. The inspector will report directly to the District Engineer and shall act with the Engineer's authority in all matters related to construction. The Inspector will be a NACE/AMMP Certified Coating Inspector, who will inspect any or all phases of work to be performed as outlined herein. The inspector shall be an addition to the District Inspector; authority shall be limited to coating related work only. The District Inspector shall remain the primary observer for all work on the project. The inspector shall work for and report to the District. The Contractor shall not rely upon the tank inspector for documentation of environmental conditions and assuring compliance with plans and specifications.

1) The Contractor shall notify the District Engineer in advance (48 hours minimum) of all surface preparation or paint application in order to perform a preliminary examination and provide acceptance of the surface preparation and each coat prior to application of the next coat.

2) The Coating Inspector shall examine all materials, tools, and equipment to be used in the blasting and coating operations and shall have the authority to direct the Contractor to remove, replace, or repair any materials, tools, or equipment found not to be in conformance with the Contract Documents including the approved shop drawings and manufacturer's recommendations. The Contractor shall be fully responsible for compliance with all safety measures, hazardous and toxic materials regulations, and site security. Observation of, or failure to observe any safety efforts of the Contractor by the Inspector shall not relieve the Contractor of this responsibility nor shall any liability transfer from the Contractor to the District or the Inspector. The Contractor shall indemnify, defend, and save harmless the District and the coating Inspector from all liability associated therewith.

3) The Contractor shall provide evidence of regular engagement in application of MCU zinc coatings for at least five years prior to commencement of this work on potable water storage reservoirs.

4) The Contractor shall certify in writing that foremen and workers on-site shall be experienced and knowledgeable in preparation for and application of high-performance industrial coatings.

5) The Contractor's workmanship shall conform to the standards and recommendations of SSPS Vol. 1, especially Chapters 5.1 and 6.

6) The District may use any testing method deemed necessary by the District Coating Inspector to verify quality of work. The District may, but is not required to, monitor the quality of work pursuant to this section.

7) The Contractor shall ensure proper materials handling and use, including: all coating materials are labeled and used in accordance with SSPC-PA 1, Paragraphs 5.1.1 thru 5.1.5, except all coating system materials without a stated shelf life shall be delivered and used within six months of the date of manufacture; and certification, from any source, that the coating system materials are still suitable for use beyond the stated shelf life or beyond the six month period specified above will not be accepted. All equipment and materials shall be stored in a secure ventilated container.

8) The Contractor shall perform the necessary quality assurance in accordance with an approved plan. The Contractor will supply all inspection equipment. The District reserves the right to use their equipment at any time.

9) The Contractor shall comply with the following conditions in collection and analysis of wastes:

a) All testing of spent abrasive blast media and removed coating materials to classify these wastes as hazardous or non-hazardous shall be performed by a laboratory that complies with and is certified under the Environmental Laboratory Accreditation Program (ELAP) of the California Department of Health Services.

b) Any Laboratory performing analysis shall provide for comparison to TTLC, STLC, TCLP limits, and RCA limits, and to all other applicable regulatory limits. Laboratory shall retain samples at least ninety (90) calendar days after all analyses are complete.

c) The Contractor shall ensure collection of as many representative samples as required by the representative of the disposal facility, but not less than 4 total.

d) The Contractor shall ensure the following: each sample shall have an identifying sample number assigned when the sample is taken; each sample number shall be included on the sampling chain of custody and in all reports, correspondence, and other documentation related to the sample; each sample shall have a sampling chain of custody; and, each chain of custody show the name and organization of each person having custody of the sample, and also show the sample number, job name and location, time of day and date sample was taken, material sampled, and tests to be performed.

e) The Contractor shall notify the District at least 24 hours prior to sampling collection for the purpose of District verification of samples collected.

f) Manufacturer's Representative: The Contractor shall, at no cost to the District, provide a qualified technical representative of the coating system manufacturer at the jobsite as required by the District to resolve problems related to the coating system or the application of the system.

SECTION 5 - Delivery, Storage, and Handling

1) The Contractor shall deliver materials as follows:

   a. Delivery of abrasive grit shall be in original labeled moisture-proof bags or airtight bulk containers. Abrasives shall not be reused.

   b. Delivery of coating system materials shall be in original, unopened containers with seals unbroken and labels intact. Labels shall identify types of material, color, and batch number. No material shall exceed six months from the original batch manufacturing date (No exceptions).

2) The Contractor shall store materials as follows:

   a. Store materials in a single, approved location.

b. Store coating system materials enclosed, secure, and ventilated structures, and maintain temperature inside the structure within the temperature range recommended by the manufacturer.

c. Keep storage location clean, neat, and free of fire hazards.

d. All operating equipment shall be placed into secondary containment to prevent accidental spills.

3) The Contractor shall handle materials as follows:

a. Avoid spilling thinners, solvents, paint products or other materials that contain toxic substances. All compressors and operating equipment shall be placed in secondary containment. All sewer or site drains shall be covered.

4) Remove discarded thinners, solvents, and paint products from the jobsite daily.

SECTION 6 - Safety

The Contractor shall comply with all Federal, State, and Local applicable safety regulations and requirements. The District assumes the present coating system Epoxy/urethane and was 0vercoated in 2000.

1) The Contractor shall bear all costs associated with stripping, handling, storing, testing, transport, and disposal of all waste. It shall be the Contractors responsibility to estimate the quantity and classification of waste associated with work.

SECTION 7 - Warranty

1) Anniversary inspection requirements and failure criteria shall be in accordance with AWWA D-102, Section 9, except as modified herein. The total warranty period shall be two years from the final acceptance date.

2) The District will conduct a first anniversary warranty inspection approximately one year following final acceptance of the work, including inspection of the exterior of the tank. The District will establish the date of the inspection and will notify the Contractor at least thirty (30) calendar days in advance of the inspection.

3) The Contractor shall provide a certified inspection. The Contractor will pay for all repairs, including the equipment.

a. The District shall consider any location where coating has delaminated, peeled, blistered, or cracked; and any location where rusting is evident as failure of the coating system. In addition, the District shall consider photographs or reports of the coating imperfections or failures as acceptable evidence of failure. Extensive Failure: If the area of failure exceeds 25 percent of the area of a portion of the reservoir surface, then that portion shall be removed, replaced, and recoated in accordance with this Section.

4) The Contractor shall be liable for all remedial work including repair of all failures by removing the deteriorated coating, cleaning the surface, and recoating with the same system in accordance with this Section. The District may allow surface preparation of small failures (areas less than 1 sq ft.) by cleaning to bare metal in accordance with appropriate SSPC-SP standards, however, the method of repair is at the sole discretion of the District.

5) The District will prepare a schedule for remedial work completion, to be no more than thirty (30) calendar days after submitting the inspection report to the Contractor. Upon the failure of the Contractor to commence remedial work within ten calendar days after the starting date established by the District, the District may at its option, retain another Contractor to perform the remedial work. The Contractor shall be liable for actual cost of all such remedial work plus a 20 percent District administrative cost.

6) The Contractor shall bear the expense of all warranty inspections of the remedial work required by the District. The Contractor shall disinfect the reservoir after the inspection and repairs.

SECTION 8 - Products for Interior Exterior Coating System Materials

1) The Contractor shall provide the following new interior coating systems consisting of a thin film zinc, epoxy, Polysiloxane for the roof Sherwin Williams's or equal.

2) The Contractor shall provide coating "certified non-lead" (less than 0.06 percent lead by weight in the dried film) as defined in Part 1303 of the Consumer Products Safety Act.

SECTION 9 - Abrasives

1) The Contractor shall use abrasive grit for field blast cleaning conforming to the following:
2) Produce a surface profile of 1.5 to 2.5 mils for the roof plates,
3) New, clean, and free of contaminants, and containing no hazardous materials.

4) Provide a sharp angular profile.

5) Certified by California Air Resources Board, Executive Order G-565.

6) Conform to all applicable requirements of the Local Air Quality District.

7) No sand or glass abrasives are allowed. Only grit type abrasives to be used.

SECTION 10 - Quality Control

1) The Contractor shall provide adequate lighting, without shadows, during all phases of work to ensure that work is performed as specified and that the entire work area is illuminated.

2) The District Coating Inspector will examine surfaces after abrasive blast cleaning to verify that all deposits of contaminants have been removed as per surface clean as per ISO 8502 (Class 2). The Contractor shall blow down and vacuum all surfaces prior to District inspection. The Tank roof shall be vacuumed.

3) The Contractor shall verify at a minimum of two times daily that air supply is free of oil and moisture contamination (ASTM D-4285). The Contractor shall use effective oil and water separators in all main compressor airlines and shall be placed as close as practicable to the equipment. Prior to using compressed air, the Contractor shall test the quality of air downstream of the separators at suitable outlets by blowing the air on a clean white blotter for 2 minutes to check for any contamination, oil, or moisture.

4) The Contractor shall perform the following daily: measure air temperature, humidity, relative humidity, and metal surface temperature, and determine dew point and relative humidity prior to abrasive blasting or painting. The Contractor shall provide portable temperature and humidity recorders to provide continuous permanent hard copy of the reservoir conditions and repeat measurements and determination of dew point as often as the District Inspector deems necessary but not less often than every four hours at the start of preparation operations and run constantly until final cure.

5) The Contractor shall maintain a written record of measurements and dew points, and time that measurements were taken, keep such record on-site, and make records available to District Inspector on request.

6) The Contractor shall furnish 1 roll of Testex tape 1.5 to 4.5 mils X-course prior to the start of abrasive blasting. The District Coating Inspector may evaluate surface preparation using field abrasive blasting standards, and Testex tape. Evaluation may include inspection of blasted surfaces for dust and abrasive residue, using clear adhesive coated tape. An evaluation will be made immediately prior to the coating application.

7) The Contractor shall verify cleanliness of all spray application equipment prior to, or no later than, time of mixing coating material.

8) The Contractor shall measure wet film thickness during coating application of coating to ensure adequate coating thickness, taking at least one measurement for each 100 square feet of application area. The Contractor shall measure dry film thickness after each coat using a non-destructive magnetic dry film thickness gauge.

9) The District Coating Inspector may, but is not required to, also measure coating thickness, at random locations, after each coat. SSPC –PA 2 (Level 1) is only to be

used for the calibration of dry film thickness gauges. This is a minimum maximum dry film thickness specification. Dry film thickness readings will not be averaged. All inspection equipment shall be supplied by the Contractor. All equipment shall have current calibration certificates. The District reserves the right to use their own equipment at any time.

10) The District Coating Inspector will evaluate cleanliness of coated surface immediately prior to application of a subsequent coat.

11) The Contractor shall test all coated surfaces for pinholes (NACE SPO-188) and holidays after application of the final coat in accordance with the following:
    a. Perform test in the presence of the District Coating Inspector.
    b. Perform test after coating has cured as recommended by the manufacturer.
    c. Re-test after coating repairs until non detectable.
    d. The District may hire a third-party inspector to inspect Contractor's work, but the ultimate responsibility for the quality of the Contractor's work and the performance of contractual obligations remains with the Contractor.

SECTION 11 - Limiting Environmental Conditions

1) The Contractor shall apply coatings only when conditions are within the limits prescribed by the manufacturer and shall not apply coatings when the following conditions exist:
    a. Metal temperature is less than 110 degrees F.
    b. Relative humidity is greater than 75 percent.

2) Contractor shall not abrasive blast or apply coatings when air temperature is less than 5 degrees F above dew point.

SECTION 12 - Preparation

1) The Contractor shall prepare surfaces to be coated in accordance with the coating manufacturer's instructions but not less than specified herein.
2) The floor plate extension and up the tub ring up 12" shall be masked, abraded and de-glossed and overcoated.
3) The contractor shall use wet (Water ring) or other non-dust method of abrasive blasting. The use of the wet blasting method will require a rust inhibitor.
4) During blast cleaning operations the contractor shall prevent any waste or foreign materials from entering the interior of the tank. If any foreign material enters the interior of the tank the Contractor shall immediately stop all operations and notify the District immediately.
5) The Contractor shall clean surfaces including removal of all visible oil, grease, dirt, welding residue, and other contaminants from areas to be coated (SSPC/Sp#1).
6) The Contractor shall provide blast cleaning including removal of existing coating, under film corrosion, corrosion, and other corrosion products from all areas to be coated; and preparation of all surfaces to be coated by abrasive blast cleaning to SSPC-SP 10 near white metal with a surface profile of 1.5 to 2.5 mils for the thin film coating system.
7) The Contractor shall ensure complete abrasive blast cleaning of metal prior to application of coating system. The Contractor will provide a hold back of 5" into the existing coating.
8) The Contractor shall not reuse abrasive blast media.
9) The Contractor shall ensure maintenance of abrasive blasting equipment including:
    a. Installation of an oil moisture separator in the airline between compressor and blast machine.
    b. Installation of an air cooler/dryer in the airline between the compressor and the oil and moisture separator.
    c. Use of venturi nozzle.
10) The Contractor shall ensure all surfaces to be blast cleaned are electrically grounded during blast cleaning. All air and blast lines will have cable whip checks installed.

11) The Contractor shall remove all dust and abrasive from freshly blasted surfaces by use of a vacuum system.

12) The Contractor shall dispose of abrasive blast media and other waste materials off-site and in accordance with approved material disposal plan and discard material directly from Reservoir to a portable container and remove container from site. The Contractor shall ensure media is not placed on ground or other intermediate location. No abrasives shall be reused at any time.

SECTION 13 - Application

1) The Contractor shall adhere to general application requirements as follows:

a. Mix and apply all coatings in accordance with the manufacturer's recommendations and instructions, the applicable requirements of SSPC-PA 1, and as specified herein.

b. Obtain Inspector's evaluation and approval of steel surface preparation immediately prior to application of first coat.

c. Obtain Inspector's evaluation and approval of cleanliness of previous coat immediately prior to application of a subsequent coat.

d. The contractor provides ratio testing at the beginning of each application.

e. Areas of less than 2 square inches may be brushed.

f. Required brush striping of edges, welds, nuts, bolts, and roof plate edges. The thin film stripe coat will be applied as a totally independent coat by brush and allowed to dry prior to application of the finish coat. The stripe coat will be the same as the system being applied. No other products shall be allowed for stripe coats.

g. Apply coatings at a temperature recommended by manufacturer.

h. Finish coat shall be uniform in color and gloss over the entire surface. Finish coat shall be smooth to touch with no sags, runs, dry spray, over-spray, cracks, pinholes, or other surface defects and must be even in color and appearance. When coating is applied, the previously coated area will be masked off to prevent overspray onto newly painted surfaces.

i. Coating should not be applied closer than 6 inches from an unprepared surface.

j. The Contractor shall apply an independent brush coat and allow all welds, plate edges, nuts, bolts, and hard to reach areas prior to application of the finish coat.

k. Roof: Sherwin Williams, INC.
Full Spot Prime: Corthane 1K at 3.0 minimum 4.0 maximum mils DFT
Full Prime Coat: Macropoxy #646 at 5.0 minimum 8.0 mils maximum mils DFT
*Full Finish Coat: Sher-loxane at 4.0 minimum 6.0 maximum mils DFT
Total System DFT: 12.0 minimum- 18 mils maximum

l. Bottom Ring: Full Prime Coat: Macropoxy #646 at 5.0 minimum 7.0 mils maximum

*Full Finish Coat: Sher-loxane at 4.0 minimum 6.0 maximum mils DFT

*The Contractor shall submit finish color and sheen prior to ordering finish coat materials.
The Contractor shall obtain written approval from the District for the selected sheen. and finish color after District approves the submittal.

2) The Contractor shall provide application equipment as follows:

   a. Airless spray pumps in compliance with manufacturer's requirements, having an anti-freeze device, and fluid filter.

   b. Use fluid tip size recommended by manufacturer.

   c. Use clean fluid lines not previously used to apply zinc-rich or water-based coating materials.

   d. Clean equipment using only products recommended by the coating manufacturer.

   e. Blow lines to remove all thinners prior to painting.

3) The Contractor shall provide coating repairs as follows:

   a. Touch-up or refinish all chipped, abraded, or otherwise unsatisfactory portions of the work in accordance with the manufacturer's recommendations or the site inspector.

   b. Re-coating or touch-up of areas that have been cured beyond the maximum time recommended by the manufacturer require the following special preparation.

   c. Sweep blast area and 3-inches into the surrounding area. Sweep blast under low pressure to uniformly abrade surface and feather edges. Feather edges by sanding or other means acceptable to the Inspector.

   d. Remove abrasive blast residue from blasted area with special attention to marginal areas of intact coating.

   e. All repairs shall be masked off.

SECTION 14 - Vent Screen Replacement, Anode Gasket Replacement, Exterior Caulking

Vent Screens

1) The vent screens shall be replaced with new vent screens per AWWA D-100 and AWWA M42.

2) Separate the stainless-steel screen and band from the carbon steel tank with NSF61-certified neoprene rubber or polyethylene spacers ¼" thick minimum to prevent

galvanic corrosion between dissimilar metals and to protect tank coatings from being crushed by screen. Strips should be placed along the entire length of bands and vertically along edges of vent openings and all contact points.

3) The existing anode gaskets will be replaced after the finish coat has been cured. The gaskets will be replaced with a hand hole liner grommet manufactured by Dive Corr (562) 439-8287. https://divecorr.com/

4) Exterior caulking. Upon completion of the exterior coating system, the void between the bottom plate and the concrete ring wall shall have the existing sealant material removed and replaced with Sika-2C. The sealant shall be applied at a1:1 from the top edge of the bottom plate extension onto the concrete ½". Prior to installing the sealant all existing felt must be trimmed even with the bottom plate extension. Sealant must be firmly forced into void. If the void, it too large the contractor shall install butyl closed cell backing rod.

SECTION 15 - Disposal of Existing Coatings and Spent Abrasive Blast Media

1) The Contractor shall dispose of spent abrasive blast media and removed coating materials in accordance with a District approved disposal plan.

2) The Contractor shall coordinate and pay all costs for sampling and testing of spent abrasive blast media and removed coating materials in order to document waste class. Minimum sampling and testing requirements are listed previously in this Section.

3) Prior to removal of hazardous wastes off-site, the Contractor shall allow adequate time for District to review laboratory test results, as well as the time required to obtain a Hazardous Waste Generator's U.S. EPA ID Number, if required the District will provide the Contractor with written notice to dispose of all or a portion of the spent abrasive blast media and/or removal coating materials as hazardous waste, if so, determined by the District that such disposal is required.

4) The Contractor shall be responsible for all costs associated with accumulating, transporting, and disposing of spent abrasive blast media and removed coating materials.

SECTION 16 - Clean-Up

1) Upon completion of the work, the Contractor shall make a detailed inspection of all work.

2) The Contractor shall be solely responsible for all paint over-spray or fugitive dust fallout claims.

3) The Contractor shall remove all spattering, spits, and blemishes.

4) Upon completion, of work, the Contractor shall remove all staging, tarps, scaffolding, and containers from the site, including but not limited to paint and thinner containers and excess paint and thinner (to be disposed of in conformance to all current regulations); paint spots removed, and the entire job site cleaned; all damage to surfaces resulting from the work from this section to be cleaned, repaired or refinished to the complete satisfaction of the District . All clean up shall be completed within 7 calendar days starting on the last day of holiday testing of the reservoir. The Contractor shall allow adequate time for District for review of laboratory test results, as well as the time required to obtain a Hazardous Waste Generator's U.S. EPA ID Number if required.

5) The District will provide the Contractor with written notice to dispose of all or a portion of the spent abrasive blast media and/or removed coating materials, as required.

6) The Contractor shall bear all costs associated with site clean up.

SECTION 14- Omissions

1) Care has been taken to delineate those surfaces to be coated. However, if the coating requirements have been inadvertently omitted from this section or any other section of the specifications, it is intended that all metal surfaces, unless specifically exempted herein, shall receive a first-class protective system equal to that given the same type of surface pursuant to these specifications.

PART IV - II Contractor/Coating Inspector Interaction & Compliance

SECTION 1 - Inspection

1) The District has retained a coating inspection firm to oversee all quality control related to coating operations. The tank inspector will report directly to the District Engineer and shall act with the Engineer's authority in all matters related to tank construction. The Inspector will be an N.A.C.E. Certified Coating Inspector, who will inspect any or all phases of work to be performed as outlined herein. The tank inspector shall be an addition to the District Inspector; authority shall be limited to tank related work only. The District Inspector shall remain the primary observer for all work on the project. The tank inspector shall work for and report to the District. The Contractor shall not rely upon the tank inspector for documentation of environmental conditions and assuring compliance with plans and specifications.

1) The Contractor shall notify the District Engineer in advance (48 hours minimum) of all surface preparation or paint application in order to perform a preliminary examination and provide acceptance of the surface preparation and each coat prior to application of the next coat.

2) The Coating Inspector shall examine all materials, tools, and equipment to be used in the blasting and coating operations and shall have the authority to direct the Contractor to remove, replace, or repair any materials, tools, or equipment found not to be in conformance with the Contract Documents including the approved shop drawings and manufacturer's recommendations. The tank inspector will also observe the Contractor's safety activities throughout blasting and coating operations and the Contractor shall immediately rectify any deficiencies noted in that observation. The Contractor shall be fully responsible for compliance with all safety measures, hazardous and toxic materials regulations, and site security. Observation of or failure to observe any safety efforts of the Contractor by the Tank Inspector shall not relieve the Contractor of this responsibility nor shall any liability transfer from the Contractor to the District or the Tank Inspector. The Contractor shall indemnify, defend, and save harmless the District and the Tank Inspector from all liability associated therewith.

3) The SSPC-Vis1 pictorial surface standards along with dry film and wet film thickness gauges will be used by the Coating Inspector to determine acceptability of the paint application. The Contractor shall provide necessary testing equipment to perform the above-mentioned tests.

4) The Contractor shall afford the tank inspector all reasonable facilities and assistance in monitoring the coating and priming operations. The Contractor shall provide weekly copies of their daily work reports to the tank Coating Inspector. Such reports shall include, but not be limited to, the day and date of work performed, the relevant weather conditions, the type and amount of work performed, all work related to the safety of the operation, and personnel assigned to work performed.

5) To facilitate adequate inspection of all surfaces, the Contractor shall provide scaffolding or rigging and people to move the scaffolding as necessary for the Coating Inspector to perform dry film thickness readings, and visual holiday inspection as required by these specifications and reference standards. The Contractor shall provide personnel to move scaffolding or rigging at the instructions of the Engineer.

6) The tank Coating Inspector shall have authority to direct the Contractor to suspend operations when environmental conditions fall outside the manufacturer's recommended parameters. The Contractor shall comply with these directions and shall not proceed until the tank Coating Inspector determines environmental conditions are sufficient to proceed. Failure to suspend coating operations as directed or restarting work without the direction of the tank Coating Inspector shall be cause for rejection of work so performed.

7) The Contractor shall immediately remove and replace all such work in accordance with these Project Special Provisions and directions of the tank inspector. No additional compensation will be allowed for work resulting from failure to comply with the tank inspector or for surfaces not otherwise conforming to the provisions of these Project Special Provisions.

SECTION 2- Coating Inspector Authority

1) The tank Coating Inspector shall have authority to direct the Contractor to suspend operations when environmental conditions fall outside the manufacturer's recommended parameters.

2) The Contractor shall comply with directions and shall not proceed until the tank Coating Inspector determines environmental conditions are sufficient to proceed. Failure to suspend coating operations as directed or restarting work without the direction of the tank Coating Inspector shall be cause for rejection of work so performed.

3) The Contractor shall immediately remove and replace all such work in accordance with these Project Special Provisions and directions of the Coating Inspector.

4) No additional compensation will be allowed for work resulting from failure to comply with the tank inspector or for surfaces not otherwise conforming to the provisions of these Project Special Provisions.

SECTION 3- Safety

1) The Contractor shall provide a safe work environment at all times. In the event the Coating Inspector notes any safety deficiencies, the Contractor shall immediately rectify noted deficiencies.

2) The Contractor shall be fully responsible for compliance with all safety measures, hazardous and toxic materials regulations, and site security. Observation of or

failure to observe any safety deficiencies of the Contractor by the Coating Inspector shall not relieve the Contractor of this responsibility nor shall any liability transfer from the Contractor to the District or the Coating Inspector.

3) The Contractor shall save harmless the District and the Coating Inspector from all liability associated therewith.

SECTION 4- Inspection Assistance

1) To facilitate adequate inspection of all surfaces, the Contractor shall provide scaffolding or rigging necessary for the Coating Inspector to perform dry film thickness readings, and visual holiday inspection as required by these specifications and reference standards.

2) The Contractor shall provide personnel to move scaffolding or rigging at the instructions of the Coating Inspector.

SECTION 5- Notification

1) The Contractor shall notify the Coating Inspector in advance (48 hours minimum) of all surface preparation or paint application in order to perform a preliminary examination and provide acceptance of the surface preparation and each coat prior to application of the next coat.

SECTION 6- Acceptability for Paint Application

1) The SSPC-Vis1 pictorial surface standards along with dry film and wet film thickness gauges will be used by the Coating Inspector to determine acceptability of the paint application.

2) The Contractor shall provide necessary testing equipment to perform the above-mentioned tests.

SECTION 7- Reporting

1) The Contractor shall afford the Coating Inspector all reasonable facilities and assistance in monitoring the coating and priming operations.

2) The Contractor shall provide weekly copies of daily work reports to the tank Coating Inspector. Such reports shall include, but not be limited to, the day and date of work performed, the type and amount of work performed, all work related to the safety of the operation, and personnel assigned to work actually performed.