Summary of Papers at the SSPC 2003 Conference Dealing With Surface Preparation Methods, Waterjetting, Wet Abrasive Blasting, And Environmental Issues, from page 4

Ultra High Pressure Waterblasting Equipment

 A Comparison of Methods For Surface Preparation On Concrete Surfaces

James P. Crocker
President
PCS, Inc.
Heavy Duty Hydro Blasting
P.O. Box 959
Hobe Sound, FL 33475

In the paper he compares UHP waterblasting, sandblasting, and shot blasting costs of equipment, cost to remove coatings, and advantages and disadvantages.

UHP Waterblasting Equipment. Depending on the manufacturer, a typical waterblasting pump rated for 40,000 psi and approximately 6 gallons/minute valued at approximately \$122,000. This price includes 200 feet of high pressure hoses, 2 guns &2 bi-modes and a vacuum recovery mower. In addition to this investment, you will need a vacuum for the recovery of water and debris. An adequate unit can be purchased for approximately \$20,000 to \$40,000. This unit would be rated for 1,000 cfm and about 800 gallons of debris capacity. Total cost would be close to \$152,000.

UHP Waterblasting. If you are required to remove a urethane or epoxy coating from a concrete surface and there is a decent amount of square footage

available, you can expect to pay between \$1.00 to \$2.00 per square foot depending on the elasticity, bonding, stickiness accessibility and thickness of the coating. Thin film can be around \$0.50 per square foot.

Bridges

4. Effluent From Bridge Pressure Washing Operations

Bob Meade Kentucky Transportation Cabinet Ted Hopwood University of Kentucky

Kentucky uses pressure washing (3,000-10,000 psi) with overcoating on many of their bridges.

(continued on page 8)



Summary of Papers at the SSPC 2003 Conference Dealing With Surface Preparation Methods, Waterjetting, Wet Abrasive Blasting, And Environmental Issues, from page 7

They looked at unfiltered effluent, filtered effluent, sand filters, some combination with chemical filters designed to remove dissolved metals. The pH of the potable water ranged from 6.84 to 8.17; of unfiltered effluent water from 6.10 to 8.54; of conventionally filtered wastewater from 5.81 to 8.45. Chemical filtering provided interesting data. One chemical filter did not change the pH; the second chemical filter increased the pH from about 7 to between 9.07 and 9.20. Filter fabric by itself is ineffective in removal total and dissolved lead, but good to remove large particles. Low tech, low cost sand filter is effective to

remove lead.
Proprietary
phosphate
chemical
reduced lead
to below
drinking
water
standards.

5. Demolition Of The Elevated Central Artery

> Ken S.Chin, P.E. Bechtel/ Parsons Brinckerhoff 185 Kneeland Street Boston, MA 02111

To reduce exposure levels to the workers,

Bechtel defined acceptable methods to remove lead based paint included power tool cleaning, hand tool cleaning, UHP Water Jetting (looks like WJ-1), encapsulation. Data is given for some of the exposure levels.

Analytical Methods

6. Levels Of Salt Contamination On Steel Beneath Coatings

> Kenneth B. Tator, P.E. KTA-Tator, Inc. Pittsburgh, Pennsylvania 15275 www.kta.com

Discusses osmotic blistering, sources of acid rain, relative

corrosivity, hygroscopic tendency, uses the three half reactions in LaQue early chapter in Vol. 1 (acidic, weak acidic, near neutral conditions), need for oxygen, migration of chloride ion to anode.

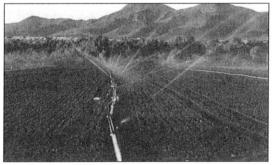
Concrete

 Surface Preparation Of Concrete For Coatings, Toppings, And Overlays

Fred Goodwin
Principal Scientist
Degussa Construction
Systems ChemRex/Master Builders
Cleveland, Ohio

(continued on page 9)

Irrigation

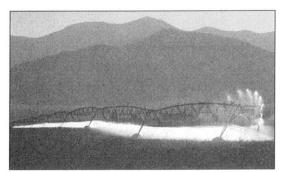




Handline sprinkler irrigation germinating crops in Yuma, Arizona. Photographs by Jeff Vanuga, USDA Natural Resources Conservation Service



Center pivot irrigation. Georgia. Photo by Jeff Vanuga, USDA Natural Resources Conservation Service



Efficient irrigation systems help save water and decrease leaching of salts. Photo by Gene Alexander, USDA Natural Resources Conservation Service

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