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#### SDS-BIONIC METAL COAT STANDARD TEST RESULTS

Test

### ASTM D-3359-09 Adhesion Standard test

ASTM D-3363 Film Hardness Taper

#### ASTM D-2047 Static

Coefficient \*Always obtain independent retest of the static coefficient after applying any coating on walking surface to verify new application meets OSHA requirements.

#### **ASTM D-2803-03** Procedure B (ISO 4623) Corrosion and Filiform.

Results

300 Hours 4B

39.11 average

passes ADA requirements\*

No Filiform or Corrosion 1000 hours

Samples were scribed with an X, exposed to NSS for 23 hours and placed in humidity cabinets set

@40°C and 80% RH for 6 weeks





Powder Coating

SDS-BIONIC Metal Coat

Test	Results
<b>E96-10</b> Water Vapor Transmission	average WVT 0.3473 gr/ft2/hr, average perms 0.8376 gr/ft2/hr
<b>G155</b> Xenon Arc, wavelength 340nm irradiance 1.0 w/m <sup>2</sup>	500 hours, slight change
ISO 4623 International Standard Corrosion	No Corrosion
ISO 4628-10, International Standard, Degradation of Coating	No Degradation coated over primer.

NOTE: Testing was done with SDS-BIONIC Metal Coat but all the SDS-BIONIC Coating products utilize the same core product and theoretically will produce similar results. (ie: Marine & Hull Coat, Concrete Coat, Wood Coat, or Stone Coat.)

### **1 Month Electrolysis and Corrosion Test**

START DATE 20 TH JULY 2011



Rectangular piece of standard aluminum was treated with SDS-BIONIC MET- AL COAT (top half) the treatment was done on the 13th July, 2011.



Rectangular piece of mild steel, with 2 stainless steel uprights welded to it was treated with SDS-BIONIC METAL COAT (top half) the treatment was done on the 13th of July 2011.



Short length of copper, was treated with SDS-BIONIC METAL COAT

(left half) the treatment was done on

the 13th July 2011



The aluminum was placed on a sheet of MDF then the mild steel assembly was placed on to the aluminum. It was placed so that the treated half of the mild steel was on top of the treated half

of the aluminum. The copper pipe was placed in the the same manner as the mild steel.

#### INSPECTION DATE 21ST JULY 2011 (DAY 1)

The assembly has been placed in the environment for 24 hours. Temperature Day 1: 13 degrees C. Rain

# Metal Coat Field

Treated side of the assembly after 1 day







Aluminum after 1 day showing rust, and beginnings of electrolysis occurring, on the untreated half of the aluminum.



Mild steel after 1 day, showing heavy electrolysis starting to occur on the untreated

surface.



Untreated side of the assembly after 1 day

#### INSPECTION DATE 25TH JULY 2011 (DAY 5)

The assembly has been placed in the environment for 5 days. Temperature Day 5: 10 degrees C. Rain





Treated side after 5 days



Aluminum after 5 days showing rust, and beginnings of electrolysis occurring, on the untreated half of the aluminum. Mild steel after day 5, showing heavy electrolysis and rust setting in on the untreated surface.

Untreated side after 5 days

#### INSPECTION DATE 1STAUGUST 2011 (DAY 10)

The assembly has been placed in the environment. Day 10 Temperature: 13 degrees C.



Treated side of the assembly after 10 days is showing no corrosion or electrolysis.

# Metal Coat Field



Aluminum after 10 days showing rust. The rust is truly setting in. Where the copper tube is sitting, the aluminum is being eaten away in 2 spots in particular due to electrolysis.



Mild steel after day 10, showing heavy electrolysis and rust setting in on the untreated surface.



Untreated side after 10 days. The "eating away" of the alu- minum can be seen where the copper pipe has been in con- tact with it for the past 10 days.

#### INSPECTION DATE 15STH AUGUST 2011 (1 MONTH)

The assembly has been placed in the environment. Current Temperature: 19.4 degrees C.



Aluminum after 1 month showing rust,. The rust is truly setting in. Where the copper tube is sitting, the aluminum is being eaten away in 3 spots in particular due to electrolysis. Mild steel after 1 month, the rust and electrolysis is much heavier and the untreated side is showing no effect.



Treated side after 1 month is showing no corrosion or electrolysis.



Untreated side after 1 month. The "eating away" of the aluminum can be seen where the copper pipe was in contact with it.

# Metal Coat Field

### 3 MINUTE COATING COMBUSTIBILITY FLAME TEST

Unpainted mild steel coated with SDS-BIONIC Metal Coat was heated with an 1800 degree propane torch for 3 minutes. While the metal darkened beneath, the Metal Coat coating did not ignite, blister or peal.



# Metal Coat Field

#### SDS-BIONIC METAL COAT CUT WITHOUT CHIPPING, PEELING OR FLAKING

The following photos are of a large truck wheel rim coated with SDS-BIONIC Metal Coat for Alcoa Aluminum. The coating was being tested for protecting their new line of truck rims being manufactured in China. After successfully passing all their tests the test rim was then cut into pie shape samples for others to review the results. The shop doing the cutting

Was surprised that the coating did not chip, peel or flake after being cut with both band saw and C&C machine. Unlike

Other coatings both types of cutting had no effect on

The SDS-BIONIC Metal Coat edges.



# **Circuit Coat Field**

# **3 Day Salt Water Submersion Test**



A 30 amp, 220 volt circuit board, coated with SDS-BIONIC Circuit Coat was submerged while running in salt water and lasted for 3 days, until a breach occured because the ground bolt had not been coated.



# **Circuit Coat Field**

### CELL PHONE SUBMERSION TEST



Cell phone circuitry was coated with SDS-BIONIC Circuit Coat, after time for the coating to cure the phone was reassembled and submerged in water. After removal from the water the phone worked normally.

#### DEEPWATER DOPPLER EQUIPMENT TEST



British Marine Technology (BMT), a leading international, multi-disciplinary engineering, science and technology consultancy, is handling doppler technology for Shell Oil. They were having to pull up and clean Shell

Oil's deepwater doppler equipment at great expense every six months or less because of marine life over growth (as shown in the picture above) preventing clear imaging.

The Doppler equipment was coated with SDS-BIONIC Marine & Hull Coat and placed at over 900 feet under water in the Gulf of Mexico in 2010. After two years it still makes clear images indicating lack of marine growth on the sounding drum. As a result of this test BMT has approved SDS-BIONIC Marine & Hull Coat for all their dopplers.

### Marine & Hull Coat



### 2 Month Static Plate Marine Growth Test

A SDS-BIONIC Marine & Hull Coat protected steel plate after being submerged for two months is being cleaned with just water from a spray bottle showing that no marine life had attached to the coated surface.

### Marine & Hull Coat

#### 6 MONTH STATIC PLATE MARINE GROWTH TEST

#### 6 MONTH MARINE GROWTH TEST



SDS-BIONIC Marine &

Hull Coat Protected Steel Plate

### Marine & Hull Coat

#### 8 MONTH STATIC PLATE MARINE GROWTH TEST



A Marine & Hull Coat protected steel plate after being submerged for 8 months is being cleaned with just water and a rag showing that no marine life had attached to the coated surface.

# Marine & Hull Coat SDS-BIONIC Coatings Marine & Hull Coat Application

### GHANA NAVY APPROVES PB MK3 PATROL BOAT APPLICATION

The Ghana Navy has a single 20 meter long ex-US Navy PB MK3 inshore patrol craft that was built in the 1970s and transferred to Ghana in 2001.

The Ghana Navy has completed testing SDS-BIONIC Marine & Hull Coat. With postitve results, the Ghana Navy has now implemented SDS-BIONIC Marine & Hull Coat for their patrol boats.







#### 28 FOOT RANGER TUG TEST



RANGER TUG TEST 1 - BEFORE COATING





New 2011 Ranger R-27

Yanmar 180HP

25 gallons fuel, 40 gallons water Two people on board

Mild Seas, 0-3 MPH wind

October, 4, 2010, regular hull paint

#### 5.3 KNOTS, 1358 RPM

Fuel Rate - .9 gallons per hour Miles per gallon – 6

#### 10 KNOTS, 2890 RPM

Fuel Rate -3.8 gallons per hour Miles per gallon -2.4

#### 15 KNOTS – 3690 RPM

Fuel Rate – 7.2 gallons per hour Miles per gallon gallons – 2.1

#### 19.6 KNOTS FULL THROTTLE

Fuel rate – 9.1 gallons per hour

Miles per gallons – 2.1



### Ranger Tug Test 2

22 gallons fuel, 40 gallons fuel

Two people on Board, Calm Seas October 15, 2010 with

SDS-BIONIC Marine & Hull Coat

#### 5.3 KNOTS – 1358

Fuel Rate - .8

Miles per gallon - 6.4

#### 10 KNOTS – 2890 RPM

Fuel Rate -3.6

Miles per gallon -2.8**15 knots - 3690 RPM** Fuel Rate -6.2

Miles per gallon – 2.5

#### 20.4 KNOTS FULL THROTTLE, 4135 RPM

Fuel Rate – 8.4

Miles per gallon – 2.3

#### J/120 RACING SAILBOAT TEST



After coating the hull with SDS-BIONIC Marine & Hull Coat, John Wimer's (Half Moon Bay, Calif.) Desdemona tied for first place after 4 races on day 1

of the 2011 Rolex Blg Boat Series in epic San Francisco Bay conditions.





#### FEDERAL AND CALIFORNIA STATE FISH HATCHERIES

Federal Fish Hatcheries spend up to \$750,000 annually per hatchery to keep them clean. The ponds need to be scraped weekly with stainless steal scrapers.

The Coleman National Fish Hatchery had a section of concrete sealed with SDS-BIONIC Quick Seal & Enhance and then top coated with SDS-BIONIC Marine & Hull Coat on 6/1/11 as a test.

For nine months marine life has not grown or attached to the area coated. The bottom settlement can now be swept clean with just a nylon brush. Above the water surface the coated concrete is staying clean and not becoming moldy.

The test has resulted in an approval to use SDS-BIONIC Marine & Hull Coat on the entire hatchery and approval has also been given for use in

all Federal and California State hatcheries.



SDS-BIONIC Marine & Hull Coat after 2 months





California State Mohave Hatchery started testing in December of 2010 and SDS-BIONIC products have since been approved for application on all 22 state hatcheries.

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# Metal Coat



# **Coleman National Fish Hatchery Spawning Room**

The Coleman National Fish Hatchery spawning room used to look like a disaster zone after spawning with fish guts sticking to everything and everywhere. The large pipe shown

in the picture had to be sanded and repainted. The large stainless steel areas had to be scrubbed. It took many many hours. After coating the pipes and metal surfaces with SDS-BIONIC Metal Coat, clean up is so much easier. The surfaces can be hosed off with water, no more scrubbing or repainting.





# Auto Revitalizer

### **Auto Revitalizer Tire Test**



Before 11/14/2011

Auto Revitalizer was applied to six year old sun faded tires on

11/14/2011 making them look new.

On 3/19/2012, five months later, Auto Revitalizer was still keeping the tires clean even in the snow and muddy roads at Lake Tahoe.

Auto Revitalizer eliminates the need to wash tires, saving fleet maintaince costs, for water, cleaners and labor.

Applying over faded automotive plastics restores color and luster to the platics. The side view mirror below was done 11 months ago and still retains the restored luster.





# **Auto Revitalizer**



#### IN-N-OUT BURGER APPLICATI

IN-N-OUT Burger has completed a test location using SDS-BIONIC Multi

Purpose Sealer and SDS-BIONIC Concrete Coat to protect various surfaces inside and outside the building.

Management has their own in house cleaning crew which was excited that the coatings

eliminated the need for power washing and the surfaces look cleaner than they ever have.

They have now completed application of SDS-BIONIC Products

in three locations and approved SDS-BIONIC Products for all 150 of their existing restaurants as well as planning to use them

for the average 8 new locations they open each year.



#### CALTRANSPROJECTS

Friday, March 30, 2012 7:46 AM To: Rick Stenberg

Subject: CalTrans Projects

Dear Rick,

In response to your inquire with regards to the approved Caltrans business, we have several ongoing projects in review and two that have been approved. We are currently in the process of the getting all the products approved by the state to go into the general purchasing listings of approved products. Part of this process was the signing of an NDA which limits the ability of the state and us to disclose information without prior approval. However, I can give you information on the two projects we have been approved for.

#### District 10 and District 4 Road Signs

Each district has its own buying regulations. District 10 has approved the use of the SDS-BIONIC Graffiti Coat to be used on all the signage in the district. We have just finished the delivery of the first 180+ signs. More signs will be contracted to be coated through our approved partner in District 10. The District has gone through all the testing of the product and has written their approval letter for using the coating on the signs. This letter was to be used strictly for internal use

as Caltrans has strict standards for public announcements related to Caltrans products. Hence the NDA. I personally have the signed letter from the Manager in charge of the Signs Department. If you would like a copy of this letter for you own files I can send it to you with the understanding that it is not to be made public.





#### **Tunnels and Tubes**

We have been approved as the preferred coating on the Devil's Slide Tunnel Project as a protective coating for the concrete, paint covered concrete and metal. The Director in Charge of Tunnels and Tubes is in the process of making the required specification changes now. The decision to move to the nano coating was made after extensive testing and outperforming the competition that was originally specified. We should have final confirmation on the completion of the spec change as soon as it happens.

Regards,

Mike Hopwood President

Syntropic Solutions, Inc.



### Dyess Air Force Base, Abilene Texas

Completed April 21st 2012, SDS-BIONIC Concrete Coat was applied on painted surfaces at Dyess Air Force Base. The majority of the project was top coating yellow and black diagonal caution

striping inside and outside of both hangar doors. There is over 6,000 sq. ft. of striping installed. This hangar had two identical halves used to maintain three Air Force planes: C130H, C130J, and B1b. All painted surfaces were coated with SDS-BIONIC Concrete Coat.

Caution stripes were installed outside with an airless striping sprayer and then top coated with SDS-BIONIC Concrete Coat the next day using a pump-up sprayer. The painted surfaces now treated with SDS-BIONIC Concrete Coat will resist oils and staining. The floor will be easy to clean, maintain, and they will last many years longer than ordinary paints as well as resisting stains better than epoxy or polyurethane.

The coated surfaces had paint spilled on them after installation and we could wipe it off with Xylene or Acetone with complete removal and no loss in gloss.









For more than a year the Golden Gate Bridge District has been testing and expanding their use of SDS-BIONIC Metal Coat, SDS-BIONIC Concrete Coat, SDS-BIONIC Quick Seal

& Enhance, SDS-BIONIC

Multi Purpose Sealer, and SDS-BIONIC Anti-Graffiti Coat on the Bridge and on the other facilities they are responsible for.

SDS-BIONIC Metal Coat is being applied as a top coat over the special paint used on the bridge making it last longer and stay cleaner while protecting the

Surfaces from corrosion as well as graffiti where the public has access.



### **Golden Gate Bridge Application**





The Golden Gate Bridge concrete cable and tower footings show signs of deterioration, becoming more porous and allowing the metal rebar to rust and corrode. SDS-BIONIC Multi Purpose Sealer will be used to protect these sur- faces. They are also planning to use it to protect the historic civil war Fort Point under the bridge.



May 28th, 2012 was the 75th Anniversary of the Golden Gate Bridge. The Golden Gate Bridge District actively prepared for this event with the construction of a new visitor center and a renovation of existing buildings and walkways. SDS-BIONIC Multi Surface Sealer was used on sidewalks and benches. SDS-BIONIC Metal Coat was applied to protect the interactive bridge model displays as well as the 27 ton display of a cross section of the cable used on the bridge pictured to the right. SDS-BIONIC Concrete Coat was also used to protect the cable cross section cradle.



### **Disneyland Application**



The Matterhorn ride at Disneyland has a steel structure that gets epoxy coated two times a year to prevent corrosion. SDS-BIONIC Metal Coat was applied in May of 2011 on a portion of

the structure as a test. The coated steel has now passed all their testing, showing no signs of rust or corrosion in 11 months. They are proceeding with application on the entire structure. The success of SDS-BIONIC Metal

Coat on the Matterhorn has led to planned use in many other areas of the park including the monorail. SDS-BIONIC Metal Coat will protect it from corrosion, keep it clean and help keep the paint from oxidizing. This success is leading to use of SDS-BIONIC products at Disneyland Resorts around the world.



20 brand new Disneyland benches were just coated with SDS-BIONIC Concrete Coat and are now in use.

#### NEW MEXICO APPROVES TESTING SDS-BIONIC PRODUCTS FOR USE ON OVER 3600 BRIDGES



The Rio Grande Gorge Bridge is a cantilever truss bridge over the Rio Grande, in New Mexico, 650 feet below. It was completed in 1965 and was once named Most Beautiful Steel Bridge in the Long Span category by the American Institute of Steel Construction.



The New Mexico Department of Transportation completed a

year of evaluating tests and has approved SDS-BIONIC Metal Coat and SDS-BIONIC Multi Purpose Sealer for use on a portion of the famous Rio Grande Gorge Bridge which is now scheduled for application in May of 2012.

#### SHASTA DAMAPPLICATION

Shasta Dam is now using SDS-BIONIC Marine & Hull Coat to protect the submerged Steel Lift Arms that open and close the large metal water gates on the dam.



Shasta Dam is also using SDS-BIONIC Metal Coat to protect pipe systems throughout the Dam which get condensation. SDS-BIONIC Floor Coat H2O is being used to protect the Turbine room floor.

The Concrete Surface of the Dam itself is becoming very porous from years of not being protected from the elements. This exposes the internal support structure to increasing corrosion issues. Shasta Dam plans to use SDS-BIONIC Multi Purpose Sealer to protect the surface.

The United States Bureau of Reclamation has directed that all 58 Dams it is responsible for increase their original life cycle. For example Hoover Dam which was mandated to last 150 years, now has to last 300 years.

#### HOOVER DAM SURVEY AND ANALYSIS

SDS-BIONIC Molecular Coatings was asked to evaluate and present solutions for increas- ing the life cycle of the Dam. This presen- tation identifies the problems and solutions using SDS-BIONIC Molecular Coatings.





IntakeTower

SDS-BIONIC MOLECULAR COATINGS HOOVER DAM SURVEY AND ANALYSIS

Photo: Intake towers (4) in total.

PROBLEM: Intake grids are made of galvanized metal in which the galvanization is beginning to wear off, exposing the metal to oxygen, causing accelerated rust and eventual failure of the metal.

The surface of the metal grids is building up with what appears to be calcium, and various marine growths, and will eventually clog up with the infestation of the "Quagga" and "Zebra" mussels.

Reduced openings in the slots from marine deposits create inward forces to the structure from the added pressure of the outside water passing through, reducing the life cycle of the towers from the added stresses.

Reduced openings in the towers slow down the ability

of rising water to divert through the grids at the rate they were engineered to handle, potentially causing the lake level to raise to dangerous levels.

SOLUTION: SDS-BIONIC Marine & Hull Coat

ADVANTAGE: SDS-BIONIC Marine & Hull Coat is a nontoxic fully immersible coating that marine growth has a very difficult time adhering to. It is very thin, approximately

1.5 to2.0 mils, so it will have virtually no impact reduc- ing the grid openings like

standard marine coatings would. It can be applied over the existing galvanized grids when cleaned and can also go over epoxy primer, which can be applied to areas missing the galvanized coatings. This will keep from having those grids shipped out and re-galvanized, saving valuable dollars.

The "Quagga" & "Zebra" mussels in testing have a difficult time adhering to the coating, greatly reducing the cleaning efforts that will need to be in place to take care of this eventual infestation.

The ultra smooth slick surface of the SDS-BIONIC Marine & Hull Coat will allow water to flow thought the grids much easier, reducing the outside load and increasing the life cycle of the towers.

The ease of the unrestricted water flow through the grids will allow the rising lake levels to properly drain at the rates they were engineered, thus reducing unsafe lake levels.

All reductions in maintenance, time, and replacement, along with increased life cycle save money.

### PHOTO: CABLE TOWER

PROBLEM: The steel structure was coated by galva- nization to reduce rusting but the destructive forces of UV from the sun, along with extreme weather and time have breached through the galvanized layer and have exposed the steel to oxygen, which is causing rust. Rusting will accelerate the decay and failure of the tower.

To re-galvanize the tower would require each piece to be removed and shipped to a plating facility and recoated. This process is extremely difficult, if not impossible, and would cost a considerable amount of money.

SOLUTION: SDS-BIONIC Metal Coat

ADVANTAGE: SDS-BIONIC Metal Coat has gone through independent salt fog and filiform testing and has been shown to outperform galvanization, powder coat-

ing and chrome conversion. It is non conductive and 100% UV resistant.

SDS-BIONIC Metal Coat is a nontoxic; environmentally safe single component coating that can be applied in the field by maintenance staff over the intact galvanized areas or applied over epoxy primer that can be ap- plied over bare steel to replace those areas where the galvanization is missing.

The tower can be saved in place at minimal cost by protecting the surface components; the tower will be smoother because of the coating, thus reducing wind load stresses and increasing the life cycle.





PHOTO: Turbines

PROBLEM: Metal and water equal corrosion, large and costly efforts continually underway to prevent rusting and corrosion of these vital systems.

SOLUTION: SDS-BIONIC Metal Coat

ADVANTAGE: SDS-BIONIC Metal Coat has gone through independent salt fog and filiform testing and has been shown to outperform galvanization, powder coating and chrome conversion. It is non conductive and 100% UV resistant.

SDS-BIONIC Metal Coat is a nontoxic, environmentally safe single component coating that can be applied

in the field by maintenance staff over the intact paint or epoxy primer.

The turbine housings can be coated in place at minimal cost. The protection of surface components will reduce rust and corrosion, lowering mainte- nance costs, and increasing the lifecycle of these valuable assets.

### PHOTO: Pat Tilman Bridge

PROBLEM: The concrete structure, like all concrete structures, is susceptible to the destructive forces of water getting down into the pores; then when it freezes the expansion from the latent transfer of water to ice spawls and breaks the concrete. Over time the problem only gets worse as larger and larger openings appear. You then begin to expose the structural steel to the elements, which over time leads to structural problems.

Keeping the concrete clean from mold and dirt is another problem that maintenance workers face, especially at tourist locations.

SOLUTION: SDS-BIONIC Multi-Purpose Sealer ADVANTAGE: SDS-BIONIC Multi-Purpose Sealer is a zero voc, 100% UV, environmentally safe sealer that is breathable, does not change the appearance of the

surface it is applied to, and won't change the coefficient of friction. It is extremely water and stain repellent.

Mold and mildew have a difficult time attaching to the surface. It resists ice from sticking, and washes clean without the need for power washers. It keeps surfaces looking clean for years, reducing cleanings, thus saving money, and prolongs the life cycle of the structure by reducing the amount of moisture intrusion and its damaging effects.

PHOTO: Outside exposed pipes.

PROBLEM: These steel pipes are succumbing to the affects of paint coatings that have oxidized from the free radicals of the sun's UV. Oxidized paint allows moisture and oxygen to penetrate through the spawled and cracked surface, thus causing premature corrosion and rust. Unabated, this leads to failure, causing potential leaks. The cost of replacing pipes before their expected life cycle increases operating expenses unnecessarily.

SOLUTION: SDS-BIONIC Metal Coat

ADVANTAGE: SDS-BIONIC Metal Coat has gone through independent salt fog and filiform testing and has been shown to outperform galvanization, powder coating and chrome conversion. It is non conductive and 100% UV resistant.

SDS-BIONIC Metal Coat is a nontoxic; environmentally safe, single component coating that can be applied in the field by mainte- nance staff over the intact paint or epoxy primer. SDS-BIONIC Metal Coat can be applied over painted surfaces, slowing down the oxidation rate by 30% to 60% (depending on





pigment color) as it acts like a shade, preventing the free radicals from the sun's UV from directly reaching the surface. This reduces the number of times a surface needs repainting, which reduces costs not only in material but labor; the substrate then lasts longer, preventing premature replacement or failure. Graffiti, although not a visible problem at the Dam, will not stick to the surface and can easily be cleaned with a mild cleaner without damage to the paint.



PHOTO: In-house turbines to power Hoover Dam and its facilities

PROBLEM: Corrosion is a constant battle when dealing with metal and water. Painted surfaces of- fer little protection.

### SOLUTION: SDS-BIONIC Metal Coat

ADVANTAGE: SDS-BIONIC Metal Coat has gone through independent salt fog and filiform testing and has been shown to outperform galvanization, powder coating and chrome conversion. It is nonconduc- tive and 100% UV resistant. SDS-BIONIC Metal Coat is a nontoxic, environmentally safe, single component coating that can be applied in the field by mainte- nance staff over the intact paint or epoxy primer.

The turbine housings can be coated in place at minimal cost. The protection of surface compo- nents will reduce rust and corrosion, increasing the lifecycle of this valuable asset.

### PHOTO: Transmission Towers

PROBLEM: Although these transmission towers are owned and maintained by WAPA, and not part of your facility proper, they are an integral part of the Hoover Dam and must be maintained. We noted much of the galvanization on these structures has worn away over the years and large sections of rust are occurring as a result. This now accelerates the corrosion and deterioration process, posing a po- tential structural failure of the towers. This of course would lead to catastrophic power failures throughout the system.





SOLUTION: SDS-BIONIC Metal Coat can be proposed to them for their review and testing. Perhaps a cooper- ative meeting to discuss findings could be arranged.

ADVANTAGE: SDS-BIONIC Metal Coat has gone through independent salt fog and filiform testing and shown to outperform galvanization, powder coating and chrome conversion. It is non conductive and 100% UV resistant.

SDS-BIONIC Metal Coat is a nontoxic environmentally safe single component coating that can be applied in the field by maintenance staff over the intact galvanized areas, or applied over epoxy primer that can be ap- plied over bare steel to replace those areas where the galvanization is missing.

The towers can be saved in place at minimal cost by protecting the surface components. The new smother surface of the tower will reduce wind load stresses and increase the life cycle. PHOTO: Concrete sidewalks:

PROBLEM: The concrete sidewalks, like all concrete surfaces, are susceptible to the destructive forces of water getting down into the pores; then when it freezes the expansion from the latent transfer of water to ice spawls and breaks the concrete. Over time the problem only gets worse as larger and larger openings appear. You then begin to expose the structural steel to the elements, which over time leads to structural problems and trip hazards.

Keeping the concrete clean from mold and dirt is another problem that maintenance workers face, especially at tourist locations.

SOLUTION: SDS-BIONIC Multi-Purpose Sealer ADVANTAGE: SDS-BIONIC Multi-Purpose Sealer is a zero voc, 100% UV, nontoxic, environmentally safe sealer that is breathable, does not change the ap- pearance of the surface it is applied to, and won't change the coefficient of friction. It is extremely water and stain repellent. Mold, mildew, and even ice have a difficult time attaching to the surface.

It washes clean without the need for power washers, and keeps surfaces looking clean for years. It prolongs the life cycle of the structure by reducing the amount of moisture intrusion and its damaging effects.

PHOTO: Copper & Brass at elevators doors and railings

PROBLEM: Copper and Brass are naturally oxidizing metals that must be cleaned and polished at least once a day to maintain their appearance and prevent tarnishing.

A tremendous number of man hours to fight a losing battle is costing the facility valuable dollars that could be utilized elsewhere.

SOLUTION: SDS-BIONIC Metal Coat

ADVANTAGE: SDS-BIONIC Metal Coat has gone through independent salt fog and filiform testing and has been shown to outperform galvanization, powder coating and chrome conversion. It is non conduc- tive and 100% UV resistant.





SDS-BIONIC Metal Coat is a nontoxic, environmen- tally safe, single component coating that can be

sprayed in the field by maintenance staff over the polished brass and patinated copper to preserve it and eliminate the daily polishing currently required to maintain the appearance for the tourists. Even fingerprints have a difficult time showing on the polished brass and can easily be wiped off.

It would free up labor force to focus on more essential duties.



PHOTO: Vinyl Composition Tile on Visitor's floor in bypass tunnel:

PROBLEM: Vinyl Composition Tile (VCT) is soft and extremely expensive to continually wax and burnish on a daily basis to try and maintain an acceptable look for the thousands of tourists, as it stains, scuffs, and dulls very quickly.

SOLUTION: SDS-BIONIC Floor Coat H2O

ADVANTAGE: This is a nontoxic alternative to waxing, which is now being classified by the EPA as toxic, making it illegal in many states. Soon it will not be allowed in any state to dump water into drains that contains wax from floor scrubbers.

Independent "Taber" test ASTM D 1044 shows SDS-BIONIC Floor Coat H2O wear in abrasion testing bet- ter than granite, making the existing soft and easily worn VCT floor much more durable.

Stains will not penetrate through the coating, including permanent markers, making cleaning much easier. It eliminates waxing, while leaving a bright finish that wears and lasts much longer than wax, and is easy to repair and reapply without stripping. It reduces man hours, saving important dollars that can best be utilized elsewhere.

PHOTO: Terrazzo floors throughout tourist areas for viewing turbine rooms and turbine area floors as well.

PROBLEM: In order to maintain the high luster look and to protect the floor from thousands of tourists, the floor must be waxed and burnished several times each month.

SOLUTION: SDS-BIONIC Concrete Coat

ADVANTAGE: This is a nontoxic alternative to waxing, which is now being classified by the EPA as toxic, making it illegal in many states. Soon it will not be allowed in any state to dump water into drains that contains wax from floor scrubbers. In-





dependent "Taber" test ASTM D1044 shows SDS-BIONIC Concrete Coat wear in abrasion testing better than granite, making the terrazzo floor much more du- rable. Stains will not penetrate through the coating, even permanent marker, making cleaning much easier. It eliminates waxing, while leaving a bright finish that wears and lasts much longer than wax, and is easy to repair and reapply without stripping. It reduces man hours, saving important dollars that can best be utilized elsewhere.