## SAUDI ARABIAN OIL COMPANY

(SAUDI ARAMCO)

Consulting Services Department Room E-7280, Engineering Building Dhahran 31311, Saudi Arabia Tel: 966-3-874-6116, Fax: 966-3-873-8351 August 28, 2000

Via FAX: (03-899-1953)

CSD-L-576/00

CHLOR*RID IS APPROVED BY SAUDI ARAMCO	
Ref: Your letter dated 8/26/00	

MOON WON WOO Vice President Al\_Kawari Establishment P.O.Box 243 Al Khobar 31952

Dear Sirs,

This is to inform you that Saudi Aramco has approved Chlor\*Rid for use in removing chlorides from steel substrates. The Saudi Aramco stock numbers for Chlor\*Rid are 09-000-421 and 09-000-422.

If you have any questions, please call A. A. Al-Madhlouh on 874-7948.

Sincerely,

K.D. Al-Faddagh, Manager (A) Consulting Services Department



July 24, 2000 - Monday

Mr. Jim Johnson CHLOR\*RID International Inc. P.O. Box 908 Chandler, Arizona 82554

Regarding: Use of CHLOR\*RID With XymaX Coatings, Inc. One - Component Moisture Cure Polyurethane Coatings

Dear Jim:

Please include the use of CHLOR\*RID for applications where XymasX's products are specified or recommended.

Both Laboratory and Field Applications indicate your product to be effective in the reduction of soluble salts when used as directed.

Also, there are no indications of adhesion loss between XymaX's Primers and steel surfaces that were washed with CHLOR\*RID solutions as per specifications.

We recommend CHLOR\*RID where excessive chlorides are present as a means to help reduce corrosion.

Please phone me at 1-800-203-9131 if any questions arise.

Sincerely,

Jack J. Braco Vice President of Sales and Marketing











936 –A PROFESSIONAL PLACE SUITE 6 CHESAPEAKE, VA 23320 (757) 436-0624 FAX (757) 436-0587

9 December 1999 Serial No. 120949-99

Jerry J. Colahan, President CHLOR\*RID INTERNATIONAL P.O. Box 908 Chandler, AZ 85244

Subject:

Letter of Appreciation

Dear Mr. Colahan;

I would like to inform you of our company's recent experience using CHLOR\*RID and your CHLOR\*TEST surface test kits. My company was the successful bidder for recoating several fuel storage tank interiors for NAVFAC. (Naval Facilities) at the Little Creek Naval Assault Craft bas in Virginia.

The NAVFAC specification required testing for chlorides and allowed for no more than 1.6 micrograms per square centimeter on the steel surface prior to coating. Using the CHLOR\*TEST KIT (which was very easy) readings on the existing surface were about 23 micrograms per square centimeter. The NACE coatings inspector on this project suggested looking into CHLOR\*RID to remove the salts. After washing the surface with a dilution of CHLOR\*RID at 1:100 with tap water and blasting the steel to SSPC0-SP-5 (White Metal), the readings of chloride were NON detectable.

Based on my past experience of not using CHLOR\*RID and trying to remove chlorides, compared to this experience, your products have saved my company thousands of dollars and time. The job was completed on time and successfully by using CHLOR\*RID and we will ALWAYS be using it on further projects.

Sincerely,

David W. Preston President, PCCS, Inc

**Industrial Coatings and Sandblasting** 



CHLOR\*RID International Inc. Chandler, Arizona

Dear Mr. Jerry J. Colahan

My company, American Stripping, has over the past several years used CHLOR\*RID and your CHLOR\*TEST kits. We perform surface preparation and apply liquid and powder coatings to many component parts of the US Navy Atlantic Fleet ships including SPECWAR and the U.S. Coast Guard. We use, NAVSEA "Standard Items" FY-00, as the specification for chloride cleanliness. Before using CHLOR\*RID to remove the salts we repeatedly washed and blasted the steel surfaces trying to maintain the spec. Since using CHLOR\*RID we have successfully completed hundreds of military projects without this repeated washing and blasting. We also use CHLOR\*RID on a daily basis for various other in-house operations.

To name a few of the ships and vessels we have used CHLOR\*RID on are the USS Roosevelt, USS Washington, USS Stennis, USS Reagan, USS Tempest, USS Grasp, USS Philippine Sea and several U.S. Coast Guard Vessels. I have found that using CHLOR\*RID on a Navy dive boat with an aluminum hull removes the salts "with the same vengeance" as when used on steel surfaces.

NAVSEA has a winner in CHLOR\*RID and The United States taxpayer is benefiting from our use of your great products.

Sincerely,

Todd Randall President ASCO

USCG ISC PORTSMOUTH 400 Coast Guard Blvd. Portsmouth, VA 23703

To: Jerry Colahan

I just wanted to take this opportunity to tell you how well the CHLOR\*RID product has been working for us here. We have been using CHLOR\*RID as part of our surface preparation on a regular basis for over a year now.

Since the introduction of CHLOR\*RID into the paint procedure, we have not had a surface fail a chloride test after pressure washing the surface with CHLOR\*RID. Before the use of CHLOR\*RID we had to pressure wash a surface, using only water, as many times as three times before the surface would pass a chloride test. This product has definitely saved us many hours of rework time, which we do not like doing.

We are using a mobile Dosmatic Pump to dispense the CHLOR\*RID in a pre-measured ration to the pressure washer. This works really well. The pump is powered by the water and the ratio of the CHLOR\*RID to water is easily set right at the pump. The premixed solution is then sent to the pressure washer. Using the Dosmatic Pump eliminates improper mixing and overuse of the CHLOR\*RID so there is no wasted product.

I was recommend the use of CHLOR\*RID to anyone who is trying to remove chloride from a surface prior to painting. It is a real benefit to the paint procedure.

Sincerely

Robert D. Miller Work Leader Industrial Paint Shop 483,8554

#### DEPARTMENT OF THE NAVY SYSTEM COMMAND

9631 Ser 92T125/0812 31 Dec 98

From: Commander, Naval Sea Systems Command

Subj: ALTERNATIVE METHODS FOR MEASUREMENT OF CHLORIDE CONCENTRATION ON METAL SUBSTRATES

#### Ref:

- (a) Uniform Industrial Process Instruction (UIPI) 6311-460; Preservation of Seawater Ballast Tanks
- (b) NAVSEAINST 5100.3D, Mercury, Mercury Compounds, and Components Containing Mercury or Mercury Compounds; Control of
- 1. New quality assurance processes associated with the use of high solids costing technology, outlined in Ref. (a), requires that chloride concentration on the metal substrate is measured and appropriately cleaned to a level of 3 \(\sigma g/cm^2\). The method currently approved for chloride level measurement is the Bresle Method. This method determines the concentration of chloride through the formation and quantitative measurement of mercurous chloride.
- 2. Ref. (b) mandates that the use of the mercury shall be minimized onboard submarines. Two alternatives, other than the Bresle Method, for measuring chloride concentration that do not utilize mercury are the SCM 400 Salt Contamination Meter manufactured by Elcometer and the Chlor\*Test kit, both distributed by Elcometer. The SCM 400 is a hand-held electronic device that measures conductivity, which is sensitive to any ionic contaminant. Alternatively, the Chlor\*Test is specific for chloride ion and the sampling method more thoroughly extracts contaminants on a rough surface.
- 3. The SCM 400 Salt Contamination Meter and the Chlor\*Test kit are hereby authorized as alternatives to Bresle Method in areas where mercury is excluded. The instrument can be purchased through Elcometer, Inc., 1893 Rochester Industrial Dr., Rochester Hills, Michigan, 48309, (303) 650-0500.
- 4. All questions concerning these alternative methods for measurement of chloride concentration on metal substrates should be directed to either Mr. Michael Dyer, SEA 92T12, (703) 602-8096, x441, Email <a href="Dyer Michael@hq,navsea,navy,mil">Dyer Michael@hq,navsea,navy,mil</a> or Mrs. Karen Poole, SEA 92T125 (703) 602-8096 x449, or DSN 332-8096, x449, Email <a href="Poole Karen M@hq,navsea,navy,mil">Poole Karen M@hq,navsea,navy,mil</a>

M.A.DYER By direction



July 30, 1999

Jerry Colahan Chlor-Rid International, Inc. PO Box 908 Chandler, AZ 85244

Dear Jerry,

We recently tested Chlor-rid in our laboratory at dilution ratios of 1: 1 00 and <u>1</u>. 50. These are higher concentrations than being used on aircraft carrier flight decks, but are what the manufacturer recommends in their literature. American Safety's MS-7C Metal Primer and MS-44OG Non-Skid were applied over Chlor-Rid treated panels and impacted. The performance of the non-skid coating was 100% with no delamination. Therefore, based upon these findings, Chlor-Rid does not appear to have any adverse effects on adhesion or performance.

If you have any further questions, please do not hesitate to contact me.

Best regards,

Michael K. Martin East Coast Manager NACE Certified Coatings Inspector #664



April 15, 1998

Jim Johnson Chlor-Rid International, Inc. PO Box 908 Chandler, AZ 85244

Dear Jim,

We would like to report our findings in both lab and field experience using Chlor-Rid along with CeRam-Kote 540®. We believe as you do, that soluble salt contamination is a major cause of coating failures. Having used Chlor-Rid under a variety of conditions, it has been very effective at reducing soluble salt contamination.

In addition, CeRam-Kote 540® shows no loss of adhesion or performance when using Chlor-Rid as per your specifications. Time and again, Chlor-Rid has proven to be a simple, fast, and effective solution for the removal of soluble salts. We at Freecom highly recommend Chlor-Rid in conjunction with CeRamKote 540® to solve long-term corrosion problems.

Best regards,

Ronnie Clanton Executive Vice President



August 25, 1997

Mr. Jim Johnson CHLOR\*RID INTERNATIONAL, INC. P.O.Box 908 Chandler, AZ 85244

Dear Jim,

We report that we have field tested CHLOR\*RID on oil tanker ballast tanks with Corroseal $^{\text{Tm}}$  Rust Converting Primer. We found it to be effective in the reduction of chlorides. The Chlor\*Rid had no negative effect on the performance of Corroseal $^{\text{Tm}}$  Rust Converting Primer.

We recommend the use of CHLOR\*RID in our literature and to our marine customers when excessive chlorides are present.

Thank you for your help and technical advice.

Yours truly,

Jack Farrar President



April 5, 1995

Mr. Jerry Colohan Chlor\*Rid International Inc. P. 0. Box 908 Chandler, AZ 85244

Dear Mr. Colohan:

Our laboratory has completed testing your Chlor\*rid liquid soluble salt remover with respect to adhesion and performance in conjunction with several of our coating systems - including Grip-Tite Epoxy Primer, Permox Epoxy, Permox Type II Epoxy, and PCS-865 Epoxy Novalac.

The following tests were performed:

- 1. Salt Spray on scribed panels ASTM B-117
- 2. Weatherometer ASTM G-5377
- 3. Adhesion ASTM D-2794
- 4. Adhesion ASTM D-33S9
- S. Adhesion ASTM D-S22
- 6. Adhesion ASTM D-4541

Upon review of the test results, we have concluded that the use of Chlor\*rid demonstrated no adverse effect to either adhesion or performance with these respective products.

Accordingly, we would recommend the use of Chlor\*Rid with these products when soluble salts contamination is encountered during the surface preparation phase of high-performance coatings application.

If we may be of further assistance, please feel free to call.

Sincerely,

THE PERMITE CORPORATION Charles T. Mattice Technical Director

Engineered Chemical Coatings Since 1921

Manufacturing and Executive Offices:
5239 BRER RABBIT ROAD - (404) 292-4842 - STONE MOUNTAIN (ATLANTA), GEORGIA 30083

Mail Address: FAX: (404) 296-4825



#### WISCONSIN PROTECTIVE COATINGS CORP.

#### MANUFACTURERS HI-RESISTANT PROTECTIVE COATINGS P.O. BOX 8147

GREEN BAY, WISCONSIN 54308-8147

PHONE: AREA CODE 414 - 437-6561

ORDER ENTRY FAX: 414 - 437-8546 LAB AND MARKETING FAX: 414 - 437-8083

#### FINAL LABORATORY TEST REPORT

DATE TEST STARTED: January 4, 1996

TEST EXPOSURE: 1 year

REPORT DATE: February 3, 1997

CUSTOMER: CHLOR\*RID INTERNATIONAL, INC.

REQUIREMENTS: Evaluate decontamination of brines from steel with Chlor\*rid solution.

COATING SYSTEMS: The following coating system was applied to our recommended film thickness

for immersion service on Atlas Cell Plates that were contaminated with a brine solution for one week and then decontaminated by hand scrubbing with

a Chlor\*Rid solution prior to receiving a white metal blast. Chloride contamination was noted to be 30 ppm prior to coating. It was reduced from

290 ppm with the Chlor\*Rid solution.

7159 Control (1) Uncontaminated Steel 7159 with Decontaminated Steel (2)

TEST PROCEDURES: Coated test plates were bolted to a glass tank cylinder to form a double dead

end similar to the method described in NACE Test Method <sup>TM</sup>-01-74. Deionized water was placed in the Atlas Cell filling it approximately 50% full. The solution is maintained at a temperature of 212 F for a total exposure of 1 year. Periodic visual inspections of the liquid and vapor areas of the panels

were performed and any changes were noted.

TEST RESULTS: PLASITE 7159 (1) - OK at 1 year; discolored entire panel

PLASITE 7159 (2) - OK at 1 year; discolored entire panel

REMARKS: The test showed Chlor\*Rid Solution was effective in reducing chloride

contaminates and did not effect adhesion of the coating.

NOTE: It should be noted that the Chlor\*Rid solution was as recommended for this

particular test situation and did not take into consideration an actual decontamination of a tank situation where concentrations may vary such as on

the floor or bottom of the tank.

It may require more than one wash with Chlor\*Rid Solution to bring chloride

levels below acceptable levels for coatings in immersion service.



# TNEMEC Company Inc.

6800 Corporate Drive , Kansas City MO 64120-1372 PO Box 411749 , Kansas City MO64120-1372 Telephone (816) 483-3400 FAX (816) 483-1251

November 21, 1994

Mr. Jerry Colahan Enviro Coat Systems P.O. Box 908 Chandler, AZ 85244

RE: CHLOR\*RID

Dear Mr. Colahan:

The purpose of this letter is to advise results of our laboratory testing to date on two Tnemec high performance coating systems, a polyamidoamine epoxy primer topcoated with an acrylic polyurethane and a moisture-cured urethane zinc rich primer also topcoated with an acrylic polyurethane.

Our testing has shown that the use of CHLOR\*RID has no effect on ASTM D 3359 adhesion of these coating systems to SSPC SPIO prepared steel after 10 freeze-thaw cycles. Performance testing has been initiated, however, results will not be known for several months.

We respectfully request that any use of the information contained in this letter must acknowledge Tnemec Company as the source.

Very truly yours,

George Barber Tnemec Company, Inc.

Advanced Polymer Sciences, Inc.

Avon, Ohio 44011 USA

216/937-6218 Phone

216/937-5046 Fax

November 27, 1992

Mr. Jerry Colahan Chlor-Rid International P.O. Box 908 Chandler, Arizona 85244

Reference: CHLOR\*RID<sup>TM</sup>

Dear Mr. Colahan,

The purpose of this letter is to confirm when used according to specifications CHLOR\*RID™ does not effect the adhesion of any of the Siloxirane products, regardless of

whether immersion service, spill & splash or vapor.

Advance Polymer Sciences, as the manufacturer of Siloxirane coating products, also

affirms the recommendation of the use of CHLOR\*RID<sup>TM</sup> as an acceptable method of surface

decontamination.

If you or any of your- customers have any questions, please feel free to contact our

customer service department at 800-334-7193

Very truly yours,

Advanced Polymer Sciences, Inc.

Denise F. Keehan

Manufacturer of:

GuardLINE Uni**LINE** Rail**LINE** Siloxirane Marine**LINE** PowerLINE

# BRIDGECOAT INC.

9100 Edison, Anjou (Qc) H1J 1T3 Tel.:1-888-279-5497 Fax (514) 351-1949

February 6, 1997

Mr. Jim Johnson CHLOR\*RID INTERNATIONAL INC. P.O. Box 908 Chandler, AZ 85244

Re: Approval of CHLOR \*RID for use with Bridgecote SACI ® 8000 Series (CSA) Coating

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Dear	Iim:

With this letter we wish to report that we have evaluated and tested CHLOR\*RID in both laboratory and field tests. When used as directed by the manufacturer, we found it to be effective in the reduction of chlorides. The Chlor\*rid has no negative effect on the performance of our Bridgecote SACI 8000 Series (CSA) Coating System.

We have included CHLOR\*RID in our manual as a solution when excessive chlorides are present.

If you have any further questions, please do not hesitate to contact me.

Regards,

Wayne A. Senick Technical Director Bridgecote Inc.



#### CORROSION RESISTANT COATINGS

January 8, 1996

Mr. Jim Johnson CHLOR\*RID International, Inc. P.O. Box 908 Chandler A7- 85244-0908

Re: Preliminary report on adhesion testing of CHLOR\*RID wash, blasted steel panel, freeze/thaw and hot/cold cyclic examination

#### Dear Jim:

This letter will certify successful testing of the above material after application and cure of Wasser MC-Zinc, a zinc-rich, single component, moisture-cure urethane primer. Our lab reports indicate "superior adhesion" with 4 "no loss of paint" using ASTM method D-3359 and Din standard #53151. Equipment used included the Gardener P-A-T Paint Adhesion Test Kit.

Official psi ratings were also taken, using the Elcometer Adhesion Tester. The results were "no loss of film" with glue failure only at 725 lbs.

At this point, Wasser would support and recommend use of the CHLOR\*RID solution, including its use within a specified system in geographical zones prone to salt and chloride contamination for both atmospheric and immersion service.

Second phase testing of freeze/thaw, and hot/cold cyclic examination has commenced, but have not concluded.

Results will be forwarded upon completion.

Please call or write if there are any question or comments regarding the factory certification.

Best Regards,

Robert L. Olmstead International Technical Sales Manger

> 8041 S 238<sup>th</sup> \* Kent, Washington 98032 U.S.A \* (206) 850-2967 \* Fax (206) 850-3098 http://www.wassercoastings.com

#### CORROSION RESISTANT COATINGS



January 23, 1996

Mr. Jerry Colahan CHLOR\*RID International, Inc. P.O. Box 908 Chandler A7- 85244

Re: Second Phase Test Results of Adhesion of Wasser MC-Coatings over CHLOR\*RID washed, blasted test panels, including Freeze/Thaw and Hot/Cold Cyclic Exposures.

In a preliminary test report, Wasser concluded "superior adhesion" and "no loss of paint", using ASTM method D-3359 and Din standard #5315 1, with the Gardener P-A-T Paint Adhesion Test Kit, and Elcometer Adhesion Tester (pull gage). These test results confirmed Wasser's support and recommendations for specific use of the CHLOR\*RID product as an integral part of systematic corrosion control, particularly over surfaces in geographical zones prone to salt and chloride contamination for both atmospheric and immersion service (refer to report dated January 8, 1996).

At the time of the report, the second phase testing of freeze/thaw and hot/cold cyclic examination had commenced, but had yet to conclude.

This report concludes the following, using the same test panels reported above:

- I. Freeze/Thaw: 10 cycles @ 12 hours each (30°F/70°F)
  - A. Gardener P-A-T method (tape pull): 58 (no flaking)
  - B. Elcometer Pull-Gage: 1000 psi (no release of paint film or glue)

II. Hot/Cold: 10 cycles@ 12 hours each (100°F/34°F)

- A. Gardener P-A-T method (tape pull): 5B (no flaking)
- B. Elcometer: 600 psi: glue failure only (after 4 days)

390psi: 1<sup>st</sup> dollie released after 5<sup>th</sup> day baking cycle(100'F),and the cold cycle (34°F), due to intracoat failure only.

These results further verify Wasser's findings that use of the CHLOR\*RID does not impede adhesion of Wasser MC-Urethanes, while insuring optimal surface preparation conditions prior to application.

Please call or fax if there are any questions regarding this report.

Sincerely, Robert L. Olmstead International Technical Sales Manger

> 8041 S 238<sup>th</sup> \* Kent, Washington 98032 U.S.A \* (206) 850-2967 \* Fax (206) 850-3098 http://www.wassercoastings.com



# **Arizona Department of Agriculture**

2422 West Holly, Phoenix, Arizona 85009 (602) 253-1920 FAX (602) 253-2247 STATE AGRICULTURAL LABORATORY

February 8 1996

Mr James Johnson CHLOR\*RID International, Inc PO BOX 908 Chandler, AZ 85244

Dear Mr. Johnson,

I wish to inform you of some of the ways that I am using CHLOR\*RID in a microbiological laboratory.

I have numerous water baths to which I add CHLOR\*RID. The addition of CHLOR\*RID inhibits rusting of the interior of the water bath and helps to maintain the clarity of the water. This translates into savings in labor and equipment replacement. Because the water stays uncontaminated for longer periods of time, emptying, cleaning, and refilling the water bath is done less frequently. The rust inhibition capabilities of CHLOR\*RID means that the integrity of the stainless steel is prolonged, resulting in fewer replacements due to the vessel leaking.

For our stainless steel carts, the use of CHLOR\*RID for routine cleaning decreases the corroding of the surfaces, removes any rust stains, and neutralizes any potential damage from the 10% chlorine solutions that are used to disinfect the carts. The same uses apply to the biohazard hood that requires frequent sanitizing with 10% chlorine bleach solution.

The hard water here causes a build-up on glass test tubes that we wash in a dishwasher. To prevent the build-up of gritty sediment on the tubes, I add CHLOR\*RID to the bleach water used to soak the tubes, and to the dishwasher when I'm washing them.

The steam sterilizer located here is used heavily. one of the main maintenance problems is corrosion of the drain lines. I have been adding CHLOR\*RID to the drain weekly to remove any hard water build-up in the lines. This removes a major source of potential corrosion problems and adds to the life of the autoclave and the plumbing connections that drain the steam and condensation during each sterilizing cycle.

Thank you for having such a versatile product that performs so well while leaving no residue behind. Since I started using it in the laboratory, I have had to replace fewer test tubes and stainless steel equipment resulting in a substantial savings to the state.

Sincerely,

Jean Hanson Microbiologist

## HAROLD T. PRITT

#### SPEC-RITE COATING SERVICES

12 Wedgewood Drive Hurricane, WV 25526

304-757-2555 FAX 304-757-3360

January 25, 1999

James R. Johnson Chlor-rid International P. O. Box 908 Chandler, AZ 85244

Subject: Performance of Chlor-rid in Cargo and Ballast Tanks of Ocean Tankers

Jim.

We used Chlor-rid in the cargo and ballast tanks on two ships where I was the Owner's Representative while they were in Atlantic Shipyard, Mobile AL, July 29-November 2, 1998. You came in and we worked together for a few days to get acquainted with the system, especially in using your chloride detection kit.

You wanted to know how the product performed. Chlor-rid is intended to be applied as a 1% solution on the pitted steel with a 3000 psi pressure washer after the rust scale has been removed by rough, abrasive blasting because chlorides are concentrated in the corrosive pits. When we used this method on cargo tanks and followed with a final abrasive blast to near white to white metal blast, the chlorides were reduced to <5 ppm. An approximation of the chloride reduction was made by hand scraping the rust off the tank surface, measuring the chlorides, which were over 100 ppm, prior to rough, abrasive blasting and pressure washing with 1% Chlor-rid.

In ballast tanks where it was not economical to perform both a rough blast and a finish blast, two methods of Chlor-rid application were used. Prior to a single blast operation of the tank surface to a commercial blast, the Chlor-rid was applied with a conventional airless paint spray pump with a 50% Chlor-rid solution (1:1 ratio of Chlor-rid/water) which reduces the chlorides to <5 ppm on the blasted surface as contrasted to >100 ppm before treatment. In the other Chlor-rid application method, a "bug" hand sprayer was used to apply Chlor-rid at full strength to unblasted, scaled surface prior to the single blast operation to a commercial blast. The chloride dropped to 15 ppm on the blasted surface from >100 on the unblasted surface.

Chlor-rid does, indeed, remove or substantially reduce the chloride level on contaminated steel surfaces and the closer you get to the scaled surface of the steel the more effective the product will be.

I also give strong endorsement for your chloride detection kit. As one who has struggled with the old cotton swab procedure and later the improved, latex bubble/needle injection method, your latex sock procedure, with the directly calculated ppm chloride reading on the glass titrator tube, is a vast improvement over the way we have been gathering this information.

Thanks for coming on-site at the Mobile, AL shipyard site and helping us with the startup for the project. Hopefully, we will get another opportunity to work with you in the near future.

Best regards Harold

Harold T. Pritt

DUPONT AUTHORIZED DISTRIBUTOR FOR HIGH PERFORMANCE COATINGS KMA P.O. BOX 346 HIGHLANDS TX 77562 TEL (281) 424-7322 FAX (281) 424-7322

JERRY J. COLAHAN CHLOR-RID INTERNATIONAL, INC. P.O. BOX 908 CHANDLER, AZ 85244

November 2, 1998

Dear Mr. Colahan

We would like to take this opportunity to tell you how your Chlor-Test chloride contamination field test performed. We received a call from one of our clients about an unforeseen chloride contamination problem that was going to cause a major delay in the project and they wanted to know if there was anything they could use in the field that would be fast, accurate and easy to use. We took your Chlor-Test chloride contamination field test-kit to the site for all parties to use. It performed as advertised it was easy to use, gave us results within minutes, and saved valuable time and money by avoiding what could have been a large potential coating failure. All parties involved, owners, engineers and the contractor, were pleased with the results.

Sincerely,

Rob Roy NACE #2487



GANNETT FLEMING, INC Suite 100 650 Park Avenue P.O.Box 60368 King of Prussia, PA 19406

Fax: (610) 265-8865 **Office: (610) 337-1660** 

September 23, 1998

Jerry J. Colahan Chlor\*rid International, Inc. PO Box 908 Chandler, AZ 85244

Dear Mr. Colahan

We would like to express our thanks for the opportunity to use the CHLOR\*TEST chloride contamination field test kit. The kit was employed on a bridge rehabilitation project for Tredyffrin Township, Pennsylvania. Our experienced structural inspector found the test kit to be completely self-contained and easy to use. The tests on the bridge were taken in a variety of locations and positions. In each case, the test kit provided good results. Thank you again for the opportunity to use this product.

Sincerely,

GANNETT FLEMING, INC.

Thomas J. McNavage, Jr.

Structural Engineer / Inspector.

A Tradition of Excellence Since 1915

It is internationally recognized that **CHLOR\*RID** is a product that has no equal in the removal of soluble salts.**CHLOR\*RID's** innovative technology and proven performance provided, not only the U.S. Government but also foreign governments, a reason to issue Letters of Patent for this unique product.

The Permite Corporation tested **CHLOR\*RID** with several of their coating systems, including Grip-Tite Epoxy Primer, Permox Epoxy, Permox Type II Epoxy and PCS-865 Epoxy Novalac perform six different tests: salt spray on scribed panels, ASTM B117; weatherometer, ASTM G 5377; and adhesion tests ASTM D 2794, ASTM D 3359, ASTM D 522, and ASTM D 4541.

"We would recommend the use of CHLOR\*RID with these products when soluble salts contamination is encountered during the surface preparation phase of high performance coatings application."

"We have concluded that the use of CHLOR\*RID demonstrated no adverse effect to either adhesion or performance with these respective products."

### - The Permite Corporation

No other product on the market offers to solubilize and remove salts as effectively, while being environmentally and worker friendly, **CHLOR\*RID** contains no volatile organic

compounds and is biodegradable. It poses no

health concerns and does not require certification for use.

Tnemec Company is conducting long term tests using **CHLOR\*RID** in conjunction with two high-performance coating systems in their laboratory.



The coating systems being tested are:

- A polyamidoamine epoxy primer topcoated with an acrylic polyurethane,
   and
- A moisture-cured urethane zinc-rich primer, also top-coated with an acrylic polyurethane.

"Our testing has shown that the use of CHLOR\*RID has no effect on ASTM D 3359 adhesion to SSPC SP 10 prepared steel after ten freeze-thaw cycles."

### - Tnemec Company Incorporated

After a one year testing program in an Atlas Cell, the following remark was made:

"The following coating systems was applied to our recommended film thickness for immersion service on Atlas Cell Plates that were contaminated with a brine solution for one week and then decontaminated by hand scrubbing with a CHLOR\*RID solution.

- 7159 Control (1) Uncontaminated Steel
- 7159 with Decontaminated Steel (2)

The test showed CHLOR\*RID Solution was effective in reducing chloride contaminates and did not effect adhesion of the coating."

### -Plastite

"When used according to specifications CHLOR\*RID does not effect the adhesion of any of the Siloxirane products, regardless of whether immersion service, spill and splash or vapor."

"Advanced Polymer Sciences also affirms the recommendation of the use of CHLOR\*RID as an acceptable method of surface decontamination."

-Advanced Polymer Sciences, Inc.



CHLOR\*RID will not interfere with the adhesion of protective coatings.

Wasser High-Tech Coatings tested CHLOR\*RID with their Wasser MC-Zinc, a zinc-rich, single-component moisture-cure urethane primer. Their lab reports determined "superior adhesion" with no loss of paint, using ASTM D 3359 and DIN standard #53151.

"Wasser would support and recommend use of the CHLOR\*RID solution, including its use within a specified system in geographical zones prone to salt and chloride contamination."

### - Wasser High-Tech Coatings - January 1996

"We report that we have field tested CHLOR\*RID on oil tanker ballast tanks with Corroseal Rust Converting Primer. We found it to be effective in the reduction of chlorides. The CHLOR\*RID had no negative effect on the performance of Corroseal Rust Converting Primer. We recommend the use of CHLOR\*RID in our literature and to our marine customers when excessive chlorides are present."

#### -Corroseal

"With this letter we wish to report that we have evaluated and tested CHLOR\*RID in both laboratory and field tests. When used as directed by the manufacturer, we found it to be effective in the reduction of chlorides. The CHLOR\*RID has no negative effect on the performance of our Bridgecote SACI 8000 Series (CSA) Coating System. We have included CHLOR\*RID in our manual as a solution when excessive chlorides are present"

### -Bridgecote

"This is to inform you that Saudi Aramco has approved CHLOR\*RID for use in removing chlorides from steel substrates. The Saudi Aramco stock numbers for CHLOR\*RID are 09-000-421 and 09-000-422."

### **SAUDI Arabian Oil Company**

"Please include the use of CHLOR\*RID for applications where XymaX's products are specified or recommended.

Both Laboratory and Field Applications indicate your product to be effective in the reduction of soluble salts when used as directed. Also there are no indications of adhesion loss between XymaX's Primers and steel surfaces that were washed with CHLOR\*RID solutions as specifications.

We recommend CHLOR\*RID where excessive chlorides are present as a means to help reduce corrosion."

### **XymaX Coatings, Inc.**

"Based on my past experience of not using CHLOR\*RID and trying to remove chlorides, compared to this experience, your products have saved my company thousands of dollars and time. The job was completed on time and successfully by using CHLOR\*RID and we will always be using it in further projects."

### PCCS- Protective Coatings and Consulting Services, Inc.

"My company, American Stripping, has over the past several years used CHLOR\*RID and your CHLOR\*TEST kits. We perform surface preparation and apply liquid and powder coatings to many component parts of the US Navy Atlantic Fleet ships including SPECWAR and the US Coast Guard. We use NAVSEA "Standard Items" FY-00, as the specification for chloride cleanliness. Before using CHLOR\*RID to remove the salts we repeatedly washed and blasted the steel surfaces trying to maintain the spec. Since using CHLOR\*RID we have successfully completed hundreds of military projects without this repeated washing and blasting. We also use CHLOR\*RID on a daily basis for various in-house operations."

### **ASCO- American Stripping Company**

"I just wanted to take this opportunity to tell you how well the CHLOR\*RID product has been working for us here. We have been using CHLOR\*RID as part of our surface preparation on a regular basis for over a year now.

Since the introduction of CHLOR\*RID into the paint procedure, we have not had a surface fail a chloride test after pressure washing the surface with

CHLOR\*RID. Before the use of CHLOR\*RID we had to pressure wash a surface, using only water, as many times as three times before the surface would pass a chloride test. This product has definitely saved us many hours of rework time, which we do not like doing.

I would recommend the use of CHLOR\*RID to anyone who is trying to remove chloride from a surface prior to painting. It is a real benefit to the paint procedure."

#### **US Coast Guard ISC Portsmouth**

"We recently tested CHLOR\*RID in our laboratory at dilution ratios of 1:100 and 1:50. These are higher concentrations that being used on aircraft carrier flight decks, but are what the manufacturer recommends in their literature. American Safety's MS-7C Metal Primer and MS-440G Non-Skid were applied over CHLOR\*RID treated panels and impacted. The performance of the non-skid coating was 100% with no delamination. Therefore, based upon these findings, CHLOR\*RID does not appear to have any adverse effects on adhesion or performance."

# **American Safety Technologies, Inc.**

"We would like to report our findings in both lab and field experience using CHLOR\*RID along with CeRam-Kote 54. We believe as you do, that soluble salt contamination is a major cause of coating failures. Having used CHLOR\*RID under a variety of conditions, it had been very effective at reducing soluble salt contamination.

In addition, CeRam-Kote 54 shows no loss of adhesion or performance when using CHLOR\*RID as per your specifications. Time and again, CHLOR\*RID has proven to be simple, fast, and effective solution for the removal of soluble salts. We at Freecom highly recommend CHLOR\*RID in conjunction with CeRam-Kote 54 to solve long-tern corrosion problems."

Freecom, Inc.

\*Copies of actual letters are available in Section 6 of the Product Book.