

SSPC 2015
featuring **GRNCOAT**



PRELIMINARY EVENT GUIDE

FEBRUARY 3-6, 2015
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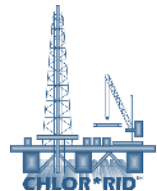
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Dear Coatings Professionals,

Time flies when you're having fun!

That adage seems especially appropriate as we move toward 2015, because next year represents a key milestone in the history of SSPC as we celebrate our 65th anniversary! In addition to hitting the big 6-5, 2015 will mark our return to Las Vegas with SSPC 2015 featuring GreenCOAT. Making things even more interesting is the fact that SSPC 2015 is going to run concurrently with World of Concrete, giving you more opportunities than ever before to network with owners, suppliers, and contractors.

With that in mind, it is my honor and privilege to invite you to join SSPC and the international community of members at the SSPC 2015 conference and exhibit at the Westgate Las Vegas Resort, February 3-6, 2015. You may recognize the Westgate as the former Las Vegas home of The King, Elvis Presley, back when it was the Hilton. The Westgate is located right next door to the Las Vegas Convention Center, so attendees will have easy access to both shows, and exhibitors can expect an influx of new faces.

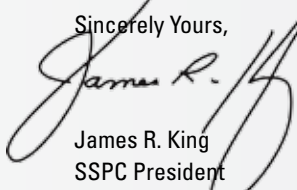
As you'll see in this booklet, SSPC members and staff are hard at work putting together all facets of the conference, from training and education to the exhibit hall and networking events. For many reasons, interest in this particular conference is very high, so make sure that attending the show is part of your 2015 plans.

Some highlights include:

- **Exhibits** – From longtime exhibitors to first time participants, the exhibit hall is the best place to find exciting new products to solve your biggest problems. Right now, exhibit space is 90% sold out!
- **Training** – Whether you're looking to get an advanced certification or refresh on some basics, the SSPC show represents the best opportunity to get training, with more classes at one time, in one place, than any other time of year.
- **Young Professionals** – After the successful launch in Orlando, SSPC Young Professionals will gather again in Las Vegas to give this key group of future leaders a stronger voice in the coatings industry.
- **SSPC CONNECT** – A new program that matches suppliers with facility owners in one-to-one private meetings. Space is limited in this new event, so make sure to get on board early!
- **Student Poster Session** – For the first time, the show will feature a Student Poster Session that will allow students and young professionals to display and present some of the latest research and concepts being studied in the coatings industry.
- **World of Concrete Admission** – Our friends at Hanley Wood are offering SSPC attendees a special discount on World of Concrete registration so you can experience the wide range of opportunities at this mega-show.

All in all, there's never been a better time to be a member of SSPC and the 2015 show is shaping up to be one of the most dynamic we've had in years. I encourage you all to come out and support your society. Bring along a colleague, a student or young professional and introduce them to the opportunities that being a member of SSPC provides.

I look forward to seeing you in Las Vegas!

Sincerely Yours,

James R. King
SSPC President



DATES, TIMES, AND PRICING

CONFERENCE SCHEDULE

Exhibit Hall Dates & Times

Wednesday, February 4	5:00 PM – 8:00 PM
Thursday, February 5	11:00 AM – 4:00 PM
Friday, February 6	10:00 AM – 3:00 PM

Registration Dates & Times

Tuesday, February 3	8:00 AM – 7:00 PM
Wednesday, February 4	7:00 AM – 7:00 PM
Thursday, February 5	7:00 AM – 5:00 PM
Friday, February 6	7:00 AM – 2:00 PM

DAILY SCHEDULE

Tuesday, February 3

8:00 AM – 7:00 PM	Registration Open
8:00 AM – 6:00 PM	Exhibitor Move In
11:30 AM – 1:00 PM	Annual Meeting & Awards Lunch
1:30 PM – 4:30 PM	Concurrent Technical Sessions
2:30 PM – 4:30 PM	Young Professionals Meetings
5:30 PM – 7:30 PM	Welcome Reception

Wednesday, February 4

7:00 AM – 7:00 PM	Registration Open
7:30 AM – 10:00 AM	Facility Owners Peer Forum
8:30 AM – 10:00 AM	Concurrent Technical Sessions
10:30 AM – 12:30 PM	Concurrent Technical Sessions
1:30 PM – 4:30 PM	Concurrent Technical Sessions
5:00 PM	Exhibit Hall Ribbon Cutting
5:00 PM – 8:00 PM	Exhibit Hall Reception
8:00 PM – 10:00 PM	The After Party

Thursday, February 5

7:00 AM – 5:00 PM	Registration Open
8:00 AM – 12:00 PM	Mega Rust Mid-Year Meeting
8:30 AM – 9:30 AM	Technical Mini Focus Sessions
8:30 AM – 10:00 AM	International Spotlight
10:00 AM – 12:00 PM	Concurrent Technical Sessions
11:00 AM – 4:00 PM	Exhibit Hall Open
11:30 AM – 1:00 PM	Complimentary Lunch in Exhibit Hall
3:00 PM – 5:00 PM	Concurrent Technical Sessions

Friday, February 6

7:00 AM – 2:00 PM	Registration Open
7:30 AM – 9:30 AM	PCS Breakfast
8:30 AM – 9:30 AM	Technical Mini Focus Sessions
10:00 AM – 12:00 PM	Concurrent Technical Sessions
10:00 AM – 3:00 PM	Exhibit Hall Open
11:30 AM – 1:00 PM	Complimentary Lunch in Exhibit Hall
1:30 PM – 3:00 PM	Exhibit Hall Closing Blast
3:00 PM – 5:00 PM	Concurrent Technical Sessions
7:00 PM – 9:00 PM	Closing Party

CONFERENCE PRICING

	Early Bird By 11/17	Pre-Show 11/17- 12/15	Onsite After 12/15
FULL CONFERENCE			
Member	\$500	\$600	\$700
Member Additional Employee	\$400	\$500	\$600
Non-Member	\$700	\$800	\$900
Non-Member Additional Employee	\$600	\$700	\$800
ONE DAY REGISTRATION (must select one day only)			
Member	\$200	\$300	\$350
Non-Member	\$300	\$400	\$450
THREE DAY EXHIBIT ONLY			
Member or Non-Member	\$150	\$150	\$150
SINGLE DAY EXHIBIT ONLY (must select one day only)			
Member or Non-Member	\$60	\$60	\$60
GUEST/SPOUSE REGISTRATION *			
	\$200	\$250	\$300
GUEST TOURS			
Lake Mead Lunch Cruise (Wednesday, 2/4)	\$155	\$165	\$175
Eldorado Canyon Tour (Thursday, 2/5)	\$135	\$145	\$155
EVENTS **			
Welcome Reception (Tuesday, 2/3)	\$35	\$50	\$75
The After Party (Wednesday, 2/4)	\$35	\$50	\$75
Closing Party (Friday, 2/6)	\$35	\$50	\$75

* Guest Registration includes technical sessions, access to the exhibit hall and all social events. Guest registration is only available to those who accompany a registrant that has a full conference registration. It does not include the Guest Tours. Guest Tours must be purchased separately.

** The Welcome Reception, The After Party, and Closing Party are included with the purchase of Full Conference or Guest/Spouse Registration. If you have not registered in one of these categories but want to attend these events, you must purchase a ticket for these events.

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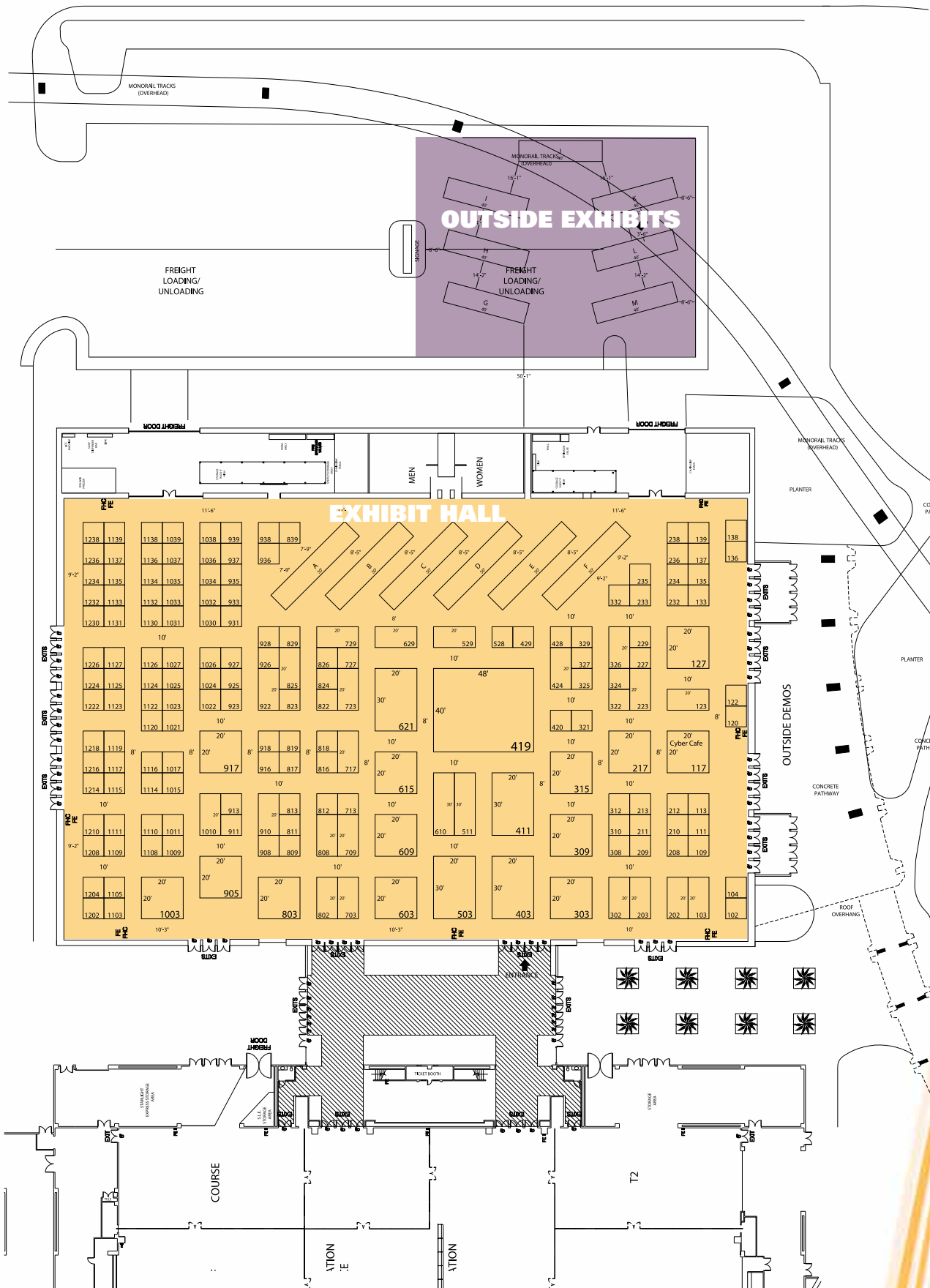
SSPC 2014 VIDEO PROCEEDINGS

If you've never attended the SSPC conference or participated in the technical program, you can see what you've been missing by watching the SSPC 2014 Video Proceedings. Access them FREE at: www.paintsquare.com/sspcvideoproceedings. The 2014 Video Proceedings were sponsored in part by International Paint.

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CONFERENCE ACTIVITIES & INFORMATION

ANNUAL MEETING AND AWARDS LUNCH

Tuesday, February 3, 11:30 AM – 1:00 PM

Join SSPC President Jim King, SSPC Executive Director Bill Shoup, the Board of Governors and your peers as we honor the 2014 award recipients. Among the Awards to be presented are:

- The William Johnson Award for outstanding achievement demonstrating aesthetic merit in industrial coatings work
- The E. Crone Knoy Award that recognizes outstanding achievement in commercial coatings work
- The Charles G. Munger Award for outstanding industrial or commercial project demonstrating longevity of the original coating
- The George Campbell Award that recognizes a single outstanding achievement in the completion of a difficult or complex industrial coatings project
- The Military Coatings Award of Excellence for exceptional coatings work performed on U.S. military ships, structures or facilities
- The SSPC Honorary Life Member Award recognizing extraordinary contribution and long-term activity on behalf of SSPC
- John D. Keane Award of Merit, named for SSPC's executive director from 1957 to 1984, acknowledges outstanding leadership and significant contribution to the development of the protective coatings industry and to SSPC
- The SSPC Coatings Education Award for significant development and dissemination of education material and technical information relating to protective coatings and their application
- The SSPC Technical Achievement Award recognizing outstanding service, leadership and contribution to the SSPC technical committees
- Women in Coatings Impact Award was established to recognize women in the coatings industry who have contributed to creating a positive impact on the culture of the industry
- President's Lecture Series Award is presented to papers handpicked by the SSPC President and chosen for the reflection of the coatings industry and profession
- The JPCL Editor's Awards for outstanding papers
- The SSPC Outstanding Publication Award presented to the author(s) of the best technical paper or presentation
- SSPC Outstanding Chapter Awards, presented to the Outstanding North America Chapter and the Outstanding International Chapter. Chapters are evaluated on the overall operation of the chapter and the creativity and quality of the events that they hold each year.

NETWORKING OPPORTUNITIES

WELCOME RECEPTION – WELCOME TO THE MAGIC

Sponsored by Carboline

Tuesday, February 3, 5:30 PM – 7:30 PM

Start the week right at a party with your friends, colleagues and business acquaintances. Sponsored by Carboline, the SSPC 2015 Welcome Reception will be magical!

EXHIBIT HALL RECEPTION

Sponsored by Sherwin-Williams

Wednesday, February 4, 5:00 PM – 8:00 PM

The Exhibit Hall opens with the ribbon cutting at 5:00 and then the fun begins! One hundred exhibiting companies offering everything from coatings to safety equipment welcome you. Food offerings and beverage stations are located through the hall, sponsored by Sherwin-Williams. Plan to roam the exhibit and find those exhibitors you need.

THE AFTER PARTY – THE KING & YOU

Sponsored by Jotun

Wednesday, February 4, 8:00 PM – 10:00 PM

The Westgate Resort was home to the Elvis Presley stage show in Las Vegas. It is rumored that he roams the hotel still. Find out for sure at The After Party, featuring The King & You!

LUNCHESS IN THE HALL

Thursday, February 5, 11:30 AM – 1:00 PM

Friday, February 6, 11:30 AM – 1:00 PM

SSPC invites you to complimentary lunches in the exhibit hall on Thursday and Friday. Tickets will be in your registration packet. Get your lunch and chat with exhibitors and colleagues.

EXHIBIT HALL CLOSING BLAST

Friday, February 6, 1:30 PM – 3:00 PM

One last run through the hall, catching the last few exhibits you need to see, with desserts and goodies thrown in for good measure. It's a guilt free "brain break" since there are no technical sessions scheduled concurrently with the Closing Blast, so enjoy!

CLOSING PARTY

Sponsored by The Brock Group, the SSPC No. California/Nevada Chapter and the SSPC Hampton Roads Chapter

Friday, February 6, 7:00 PM – 9:00 PM

Say good-bye to to Las Vegas as we close the 2015 conference and begin our look forward to SSPC 2016 in San Antonio, Texas. Be on hand at the low-key gathering to shake hands and relax.

FACILITY OWNERS BREAKFAST AND PEER FORUMS

Wednesday, February 4, 7:30 AM – 10:00 AM

Facility owners are invited to join the QP Certified Contractors at a complimentary breakfast to thank them for their commitment to quality coating projects. During the breakfast, a panel of peers present thought-provoking questions to initiate discussion. Facility owners only, please. An RSVP is appreciated.

PROTECTIVE COATINGS SPECIALISTS (PCS) BREAKFAST

Friday, February 6, 7:30 AM – 9:30 AM

The Protective Coatings Specialist certification program (PCS) identifies and awards recognition to individuals who have in-depth knowledge in the principles and practices of industrial coatings technology. Certification attests to the professional credibility of the coatings practitioner and raises the standards of the protective coatings profession. All PCS certified individuals are invited to a complimentary breakfast. An RSVP is appreciated.

RSVP for any of these special events by contacting Jim Kunkle at kunkle@sspc.org or 412-281-2331 ext. 2210.

CONFERENCE ACTIVITIES & INFORMATION

LAKE MEAD LUNCH CRUISE

Wednesday, February 4, 10:30 AM – 2:30 PM

Only minutes from the glitter and glamour of Las Vegas lies another world - Lake Mead and the mighty Hoover Dam. The waters of Lake Mead are home to the beautiful, roomy, comfortable, smooth excursion vessel of Lake Mead Cruises, the delightful paddlewheel vessel, the Desert Princess. The Desert Princess was built especially to cruise the clean, blue waters of picturesque Lake Mead. Visitors and locals alike can enjoy a fun combination of spectacular scenery, good food and "Outrageously Great Tours!" on beautiful Lake Mead aboard the Desert Princess. Join us for a delightful luncheon cruise, departing the Westgate at 10:30 AM and returning by 2:30 PM.

Pricing:

Before 11/17/14 \$155 per person

11/17/14 to 12/15/14 \$165 per person

After 12/15/14 \$175 per person

ELDORADO CANYON TOUR

Thursday, February 5, 8:00 AM – 12:00 PM

Take a step back in time touring the Eldorado Canyon, home to the famed Techatticup Mine. The Salvage vein, a rich vein of gold that ran in the hills above the Colorado River, was discovered in El Dorado Canyon and from there, the Techatticup Mine was built. The mine just wasn't a gold mine though; it went on to be one of the most successful mines in the region, turning out gold, silver, copper and lead.

Enjoy a short journey in the comfort of a Tour Trekker to the rustic site. Along the way enjoy the spectacular scenery – fields of teddy bear cholla, rare geological formations and a stop along the banks of Lake Mojave – the blue jewel of this isolated desert terrain.

Upon arrival to El Dorado Canyon and the Techatticup Mine, a professional tour guide will take you into the mine, where you will learn about the mine and envision the back-breaking work done by the miners over a century ago as they chased the gold veins deep into the rugged mountain side.

Pricing:

Before 11/17/14 \$135 per person

11/17/14 to 12/15/14 \$145 per person

After 12/15/14 \$155 per person

NOTE: The tours are not included with any registration category. Anyone who desires to go on a tour must purchase a ticket.

HOTEL INFORMATION

WESTGATE LAS VEGAS RESORT

The LVH was purchased on July 1, 2014, by Westgate Resorts and renovations have already begun! Westgate Resorts promises that Westgate Las Vegas will set the standard for service in Las Vegas. Make your reservation now to experience the best of the old and the new in Las Vegas.

All events and the exhibit are located on property at the Westgate Resort. The Westgate is offering a very attractive rate of \$149 single/double occupancy for Tuesday through Friday nights. Other nights, either before or after the actual conference dates, are at a \$79.00 rate.

Reservations may be made online at www.sspc2015.com/hotel or by calling 800-635-7711 and mentioning SSPC 2015.

MEGA RUST MID-YEAR MEETING

Thursday, February 5, 8:00 AM – 12:00 PM

The mid-year follow up to the Mega Rust 2014 Conference is scheduled to be part of SSPC 2015. Held this past June in San Diego, CA, Mega Rust provides a consolidated focus on Navy corrosion issues. The meeting scheduled for SSPC 2015 is designed as an interim update on key corrosion issues concerning the Navy community.

If interested in participating, please email ASNE at megarust@navalengineers.org. For more information, contact Mega Rust Chairman Dave Zilber, dzilber@mmm.com

INTERNATIONAL SPOTLIGHT

Thursday, February 5, 8:30 AM – 10:00 AM

Global Environmental Regulations Drive New Technologies in Epoxy Coatings

Speaker: Marcelo Rufo, Air Products and Chemicals Brazil

Global Environmental Regulations have driven many coatings developments over the last decades. Today's regulations around worker safety and environment protection are seen as important drivers in new product development. More recently such regulations are spreading more widely, as people want to live on a planet where everyone can enjoy a better quality of life, breathe clean air, where rivers and oceans are preserved, and the impact of humans on wild life is reduced. There is increasing pressure from society on all industrial activities to reduce and or eliminate the use of raw materials that could have negative impact on the environment or on the health of people consuming or handling products that uses such raw materials.

YOUNG PROFESSIONALS MEETING

Tuesday, February 3, 2:30 PM – 4:30 PM

After the successful first meeting at SSPC 2014 in Orlando, SSPC Young Professionals will gather again in 2015 in Las Vegas for a fun, casual event to network, socialize and discuss how students and young professionals can make a difference in the coatings industry. Learn what career paths are available to you and find out how you can achieve a leadership position that enables you to shape not only your career, but the direction of your company and an entire industry.

NEW! POSTER SESSION

The Poster Session is the presentation of research information by an individual or representatives of research teams at a conference with an academic or professional focus. In the coatings industry, the work is usually presented by students or young professionals.

For SSPC 2015 we are targeting collegiate/graduate students to submit posters for this session. One of the goals of SSPC is to bring more young people into the organization, so we thought that this may be a good way to attract more college students to attend our conference.

Typically the posters are strictly based on the student's current or previous research, so they can choose their topic as long as it is relevant to the industry. In theory, the research should be fairly recent as to not present old/outdated technology.

Each presenter will be allocated a 4'x8' poster space and all posters must include the following categories:

- Title
- Abstract/Introduction
- Objectives
- Results/Discussion
- Future Research
- Conclusion
- References/Acknowledgements

TECHNICAL PROGRAM

Tuesday Afternoon | P. 8

- Session 1:** Workshop: Protective Coatings - An Overview
- Session 2:** Workshop: An In-Depth Look at Standards Most Frequently Used by Industrial Painters
- Session 3:** Hot-Dip Galvanizing
- Session 4:** Business

Wednesday Morning | P. 9

- Session 1:** Workshop: Coating Failure Investigations in Action
- Session 2:** Environmental, Health, Safety and Regulations
- Session 3:** Panel Discussion: SSPC 2015 Coating Inspectors' Forum
- Session 4:** Understanding Building Enclosure Coatings – Project Design and Inspection Workshops – Part I

Wednesday Mid-Morning | P. 10

- Session 1:** Panel Discussion: Agree to Disagree: Exploring Differing Views on Causes of Coating Failures
- Session 2:** Bridge Painting and Protection
- Session 3:** Marine Coatings
- Session 4:** Understanding Building Enclosure Coatings – Project Design and Inspection Workshops – Part II

Wednesday Afternoon | P. 15

- Session 1:** Workshop: Preventing Premature Coating Failures
- Session 2:** Coating Types – Part I
- Session 3:** Concrete Protection Solutions
- Session 4:** Understanding Building Enclosure Coatings – Project Design and Inspection Workshops – Part III

Thursday Morning | P. 18

- Session 1:** Mini Session: Failure Analysis of Paints and Coatings for Wind Towers, T & D Pipeline, and Utility Structures Case Studies
- Session 2:** Mini Session: Industry Training/Certification Programs
- Session 3:** Mini Session: Corrosion in Concrete
- Session 4:** Mini Session: Green Industrial Coatings

Thursday Mid-Morning | P. 20

- Session 1:** Panel Discussion: Women's Leadership Forum
- Session 2:** Workshop: Proper Use of Coatings Inspection Instruments
- Session 3:** Panel Discussion: SSPC-SP 13/NACE No. 6 Surface Preparation of Concrete: Industry Standard or Industry Guideline?
- Session 4:** Green Evolution Coatings

Thursday Afternoon | P. 22

- Session 1:** Inspection
- Session 2:** Coating Types – Part II
- Session 3:** Concrete Floor Protection
- Session 4:** Corrosion Prevention in the Military

Friday Morning | P. 26

- Session 1:** Mini Session: Safety
- Session 2:** Mini Session: Dehumidification
- Session 3:** Mini Session: Food Grade Paints
- Session 4:** Mini Session: Soluble Salts

Friday Mid - Morning | P. 27

- Session 1:** Coating Testing for the Marine Industry
- Session 2:** Formulating Coatings

Friday Afternoon | P. 30

- Session 1:** Workshop: Fall Protection Training
- Session 2:** Corrosion Under Insulation

TUESDAY AFTERNOON – FEBRUARY 3

Session 1: Workshop: Protective Coatings - An Overview

Protective Coatings - An Overview

Speakers: Chris Farschon, PCS, Tony Serdenes, Ron Quesenberry, and Charles Brown

Company: Greenman-Pedersen, Inc.

Description: The workshop will provide an overview of an industrial protective coatings project, including design considerations, material selection, surface preparation guides, ambient conditions, and basic quality control techniques. What participants will attain out of this course is a basic understanding of how protective coatings are specified and applied to meet the goals of a project. We will review and present typical inspection instruments that would be used on a paint project, surface preparation guides, how to read a product data sheet and how to measure ambient conditions.

Session 2: Workshop: An In-Depth Look at Standards Most Frequently Used by Industrial Painters

An In-Depth Look at Standards Most Frequently Used by Industrial Painters

Speakers: Michael Damiano, PCS, and L. Skip Vernon, PCS, MCI
Company: SSPC: The Society for Protective Coatings and Coating and Lining Technologies, Inc.

Description: This workshop will explore several new and recently revised versions of SSPC standards used by industrial painters including revisions to SSPC-PA 2 and SSPC-AB 2, and other new SSPC standards focusing on the more obscure requirements and ambiguities of each. The workshop will address what constitutes an industry standard, the contractual implications of specifying using only a standard, and the impact of secondary and tertiary references in standards.

Session 3: Hot-Dip Galvanizing

Painting/Powder Coatings Over Hot-Dip Galvanized Steel

Speaker: Dr. Thomas J. Langill

Company: American Galvanizers Association

Description: The demand is expanding for painting/powder coating over hot-dip galvanized steel (duplex system) because of the durability the synergism between the two delivers means more manufacturers and contractors will be involved. This technical workshop is directed toward paint/powder coating manufacturers and contractors and will cover information to give both a thorough understanding of the unique characteristics of the hot-dip galvanized coating as well as preparation of the galvanized surface before painting or powder coating, critical to delivering a high-quality duplex system.



Throughout the program, this icon is used to indicate a presentation belonging to SSPC 2015's featured GreenCOAT programming.

Real World Application of Coatings Over Hot-Dipped Galvanizing

Speaker: Kevin Irving, Todd Williams, and Ahren Olson

Company: AZZ Galvanizing Services and Bayer MaterialScience LLC

Description: The performance of direct-to-galvanizing polyaspartic coatings was benchmarked versus a traditional epoxy / polyurethane two-coat system and polyester powder coating. Surface preparation was found to be critical to physical performance, especially blasting media type, and the time between blasting and painting. ASTM and SSPC application guidelines will be compared to our findings and the differences in the standards will be discussed, along with recommendations for revisions. The suitability of various testing methods for industrial applications will be discussed including salt fog, prohesion, Cleveland condenser, and wet / dry adhesion testing. Lastly, productivity enhancements from a direct-to-galvanizing polyaspartic coating versus traditional 2-coat epoxy / polyurethane and powder coatings will be discussed.

Common Causes of Premature Coating Failures on Hot-Dip Galvanizing

Speaker: Michael O'Brien

Company: MARK 10 Resource Group, Inc.

Description: One industry expert compared applying protective coatings on hot-dip galvanized steel as playing Russian Roulette with an automatic weapon. Hot-dip galvanizing (HDG) is promoted as a long lasting, cost-effective corrosion prevention system. In many industrial applications, a protective coating system is applied over hot-dip galvanizing in order to provide an extended life or for aesthetic reasons. Applying a coating over HDG is commonly referred to as a duplex system with an estimated life of up to 60 years, depending on the environment. However, every year numerous premature coating failures occur with duplex coating systems on hot-dip galvanized steel. Some failures are massive and very expensive, costing millions of dollars to litigate and to repair.

The failure discussed in this presentation will include applications of coatings in the galvanizing shop and in the field. This presentation, based on numerous premature coating failures investigated by the author on HDG surfaces during the past 35 years, will provide the attendees with an understanding of the common reasons for premature coating failures on HDG.

Session 4: Business

Root Cause and Forward Thinking

Speaker: Doug Sawyer

Company: CDS Custom, LLC

Description: We will discuss a disciplined approach to the decision making process by developing supported defensible rational for why we do things. A discussion of the root cause analysis system will be used. The root cause approach to problem investigation will be translated to a forward thinking decision matrix to understand and help eliminate project problems before they happen.

Managing a Multi-Generational Coatings Business

Speaker: Jon Goldman

Company: Brand Launcher

Description: Your coatings business will soon include Baby Boomers (1946-1964), Generation X ('60s & '70s), and Gen Y (1982-2000). These groups don't just think, talk, and work differently; they have vastly different expectations of themselves, each other, and you. As an owner or manager, you need to maintain productivity despite generational differences... but how? This refreshingly practical session reveals straightforward strategies to "bridge the gap", even between employees who are 40 years apart.

How to Reduce Human Error through Safety Self-Awareness

Speaker: Greg Ford

Company: TalentClick Workforce Solutions

Description: Studies show that up to 90% of workplace incidents are caused by human error that leads to reduced workforce productivity and creates high operating costs. As a result, progressive organizations are beginning to explore the human factor in the safety equation. This presentation will focus on the link between personality traits and high-risk behavior, examining human "default settings" of being impulsive vs. cautious, rule-resistant vs. compliant, distractible vs. vigilant, irritable vs. calm, and so on. It will show how this link can be used to recruit "safer" employees and train existing staff to reduce workplace incidents and increase productivity.

WEDNESDAY MORNING - FEBRUARY 4

Session 1: Workshop: Coating Failure Investigations in Action

Coating Failure Investigations in Action

Speaker: Cynthia L. O'Malley, PCS

Company: KTA-Tator, Inc.

Description: Interactive case studies – what should the consultant and laboratory analyst do?

Coating Investigations in action is a set of interactive scenarios in which you can follow a consultant and laboratory analyst on their journey and decide what the investigators should do at crucial points in the process. The presented case studies, delivered via an interactive platform, mimic the real world: information comes in a variety of forms and must be evaluated when making important decisions regarding the actions necessary for the progression of the investigation.

This active learning experience challenges you to practice and apply investigative skills in a risk-free environment. The follow-up with the presenter helps you evaluate the effectiveness of your decisions, and the impact of your decisions on the conclusions and recommendations.

Session 2: Environmental, Health, Safety and Regulations

Breathing Fresh Air of Compliance: Establishing an OSHA Compliant Respiratory Protection Program

Speaker: Nick Bozzuto

Company: Bullard

Description: With over 5 million respirator users in approximately 1.3 million US workplaces, respiratory protection is a perennial "Top 5" most cited OSHA violation. 2013 saw over 3,800 violations, taking fourth place and increasing 64% from 2012 (also the fourth-most cited standard). The number one reason for citation is lack of a written program. 29CFR1910.134 is the OSHA standard that covers respiratory protection. A written program is required in any workplace where respirators are necessary to protect the health of the employee or whenever respirators are required by the employer.

Regulatory Update: Current and Emerging Trends in Occupational and Environmental Health

Speaker: Alison B. Kaelin

Company: ABKaelin, LLC

Description: This annual presentation summarizes environmental, health and safety issues that may impact SSPC members. This presentation will discuss current and expected EPA and OSHA regulatory rulemaking, emphasis programs, enforcement initiatives or other similar topics. This presentation will include a review of OSHA's expected final standards on confined space in construction and silica and other proposed or revised regulations related to the coatings industry. Most of the information is taken directly from the respective agency's published regulatory agenda, supplemented by anecdotal information gathered from various professional journals, seminars and conferences.

Minimizing Dust in Open Air Environments with Vapor Abrasive Blasting

Speaker: Bill Eliason

Company: EcoQuip | AFTD | Graco Inc.

Description: The coating and cleaning industries face many changes and challenges from environmental agencies. Most of these changes have to do with containment regulations and minimizing the dust in open air blast environments. With these regulations now in place, contractors are looking for alternatives to traditional dry blasting. This presentation will explain the benefits of vapor abrasive technology.

Session 3: Panel Discussion: SSPC 2015 Coating Inspectors Forum

SSPC 2015 Coating Inspectors Forum

Moderators: Earl Bowry, PCS, Jotun Paints, Inc. and J. Peter Ault, PCS, Elzly Technology Corporation

Description: This year the panelists at the coating inspectors' forum will be representatives from the major organizations that certify individuals as coating inspectors.

The topics will include:

Levels of Certifications: What are the specific requirements of a level 1, 2 or 3 individual? What can owners expect to receive by hiring someone with each level of certification? What requirements are (or should be) common across the different organizations?

Requirements for continuing education: What are the continuing education requirements (if any)? Should basic requirements be established across the organizations?

Requirements for experience: What are the requirements required of an individual to attain each level of certification? What requirements are (or should be) common across the different organizations?

Session 4: Understanding Building Enclosure Coatings – Project Design and Inspection Workshops – Part I - Sponsored by: Durability + Design

New Construction Coating Design/Specification Workshop

Speakers: Davis Kyle and Kevin Knight

Company: Master Painters Institute and Retro-Specs, Ltd.

Description: This workshop will walk through the steps for selecting architectural coating systems to address project-specific needs and preparing the specification for doing the work. The workshop will focus on the MPI decision tree for architectural (new construction) coating selection and the use of Masterspec to create specifications.

WEDNESDAY MID-MORNING – FEBRUARY 4

Session 1: Panel Discussion: Agree to Disagree: Exploring Differing Views on Causes of Coating Failures

Agree to Disagree: Exploring Differing Views on Causes of Coating Failures

Moderator: Dwight Weldon, PCS, Weldon Laboratores, Inc.

Panelists: Gunnar Ackx, PCS, Scicon Worldwide; Gordon Kuljian, PCS, GK Consulting, LLC; Michael O'Brien, Mark 10 Resource Group, Inc.

Description: A panel of coating specialists with experience in analyzing the causes of premature coating failures will review the same photos and laboratory data about a specific case, and then, in turn, will explain their views on what happened and why. The catch? Each will represent a different party in the dispute - Owner, General Contractor, Painting Contractor, and Paint Manufacturer. The panel moderator will lead a discussion about the differences in interpretation of the same facts.

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Session 2: Bridge Painting and Protection

Paint System Performance Warranty

Speaker: Shameem A. Khan

Company: Maryland State Highway Administration

Description: The Maryland State Highway Administration routinely advertises cleaning and painting contracts, which include a Paint System Performance Warranty. The State Highway Administration believes that implementation of warranty contracting procedures have the potential to provide improved performance while minimizing State Highway Administration's construction engineering concerns and providing protection from early coating failures.

Bridge No. 0312400 carrying I-695 over US 40 was selected first for this program in 1997. This bridge built in 1958 and widened in 1964 consists of four simple spans (34', 82', 82', 40') for a total of 238 ft. long X 123 ft wide, and consists 22 rolled beams. This bridge represents a typical bridge carrying the Baltimore Beltway over a major route where maintenance of traffic is the major concern. The other reason was that it was a good candidate for overcoating is due to minimum surface preparation, and its location nearby where we can easily monitor and evaluate.

Contractor's qualifications, experience, warranty criteria, including period of warranty, insurances, and warranty performance bond, were established.

The contract requires the contractors to provide to the Administration a written warranty for a period of 5 years (plus additional years as appropriate up to 10 years). The warranty includes all materials, labor, equipment, tools and maintenance of traffic costs.

The contractor shall unconditionally warrant to the Administration the paint system applied to the bridge to be free of defects defined and determined by visual inspection and paint thickness measurements. The warranty period starts from the date of acceptance by the Administration of the completion of the construction phase of the project.

The cleaning and painting was performed by a Low Bid Contractor.

The findings gathered in this study are the result of five years of service with annual inspections.

The findings were submitted to Federal Highway Administration's Innovative Bridge Research and Construction Program.

Bridge Maintenance Painting in the Land of 10,000 Lakes - MNDOT's Novel Approach to Improving Bridge Maintenance Painting Operations

Speakers: Richard A. Burgess, PCS, and Sarah K. Sondag, P.E.

Company: KTA-Tator, Inc. and Minnesota Department of Transportation

Description: In May 2013 the Minnesota Department of Transportation (MnDOT) with KTA-Tator, Inc. conducted a one-day seminar on Bridge Maintenance Painting Strategy & Project Design. One outcome of that seminar was the realization that the Agency needed a more uniform method to rate the condition of coatings statewide during the biennial bridge safety inspections and subsequently how to select and prioritize maintenance painting strategies. To address these needs, MnDOT assembled a Technical Advisory Panel and launched a multi-objective study in October 2013. The first objective was to conduct a Transportation Research Synthesis of representative Transportation Agencies' policies, guidance, and manuals related to best practices for bridge maintenance painting operations performed by agency personnel. The second objective was to identify the best practices appropriate for MnDOT from the results of the synthesis in order to develop a more robust statewide bridge maintenance painting program. Ultimately this study resulted in an established decision process and a Bridge Maintenance Painting Manual. The principal areas of study included guidance for conducting coating condition assessments on existing structures and guidance for selecting maintenance painting strategies based on the condition and characteristics of the existing coating systems. Among key decision points addressed were: prioritizing structures for maintenance painting, determining the scope of maintenance painting projects, establishing the necessary degree(s) of surface preparation, selecting coating systems, and considering compatibility with existing systems when overcoating. The rating system and custom photographic guides (in development) are designed to coincide with Element #515: Steel Protective Coatings in the MnDOT customized software program used to manage data from the biennial bridge inspections, which ultimately feeds into AASHTOWare BrM.

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Into the Future: Advanced Thick-Film Spray Applied Liquid Waterproofing Membrane Systems for Bridge Deck Applications

Speaker: Dudley Primeaux, PCS, and Joe Haydu

Company: VersaFlex Incorporated and Bridge Preservation LLC

Description: It does not take one with too much intelligence to note that our infrastructure is in dire shape. Not only does this include our water & wastewater areas, but also our road and bridge systems need massive help. Deterioration due to environmental issues, water and chemicals that are placed are cause for serious corrosion and erosion concerns. Over the years, a variety of methods have been employed to help with these issues, but all with their own characteristics and problems. As populations grow in centralized areas, not only does this put added abuse on the roads, but also scheduling repairs and time for those repairs, can create nightmares for local traffic. Thick-film spray applied waterproofing systems are not new to the coatings industry and have been successfully used to combat these corrosion and erosion activities. By following coating / lining industry standards, quality inspection techniques during installation and advancements in the product technology, these systems will provide for a high performance waterproofing membrane system for road and bridge application areas. This is a very fast set / cure technology which minimizes road work delays, and offers the ability for complete wear-course applications, offers many advantages to waterproofing work in bridge applications. This presentation will focus on these advancements and performance properties, application and use techniques, as well as potential for robotic type installation that will carry us into the future.

The Color of History: When the Brooklyn Bridge is Your Canvas

Speakers: Guerman Vainblat, P.E. and Timur Kolchinskiy, E.I.T.

Company: Greenman-Pedersen, Inc. and Hirani Group

Description: Choosing the right colors for any paint job is very important, and can be fun. Remember when you were a child and got a coloring book for your birthday? Imagine if your canvas for coloring wasn't bound pages, but rather the amazing Brooklyn Bridge. Wouldn't that be exciting? However, that choice was made 131 years ago, and we need to maintain it to preserve The Color of History, which can be a real challenge.

This study brought to a close what we call our "Brooklyn Bridge Trilogy," a trio of papers outlining the challenges faced on a project of the magnitude of Brooklyn Bridge Contract 6 and some of the methods used to solve them.

Starting, with our first presentation, a general project overview, and continuing in our second work by focusing on abating the existing lead-based paint on the steel structure, with this presentation we came to a logical conclusion of the project portrayal, new multi-coat systems application. How much paint does it take to paint the Brooklyn Bridge, and what paint systems are used to provide sufficient corrosion protection and give this magnificent structure the proper aesthetic? What challenges did the project team face during the course of the project?

The answers to these questions, and more, will be found in this presentation and technical paper, which will provide statistical analyses of paint usage and illustrate the history of coating materials application throughout the project duration.

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Session 3: Marine Coatings

Translational Corrosion Science

Speaker: Daniel J. Dunmire

Company: DoD Office of Corrosion Policy and Oversight/LMI

Description: Translational science itself is not a new scientific process. Since investigative science experiments were established and results measured, basic and applied science has been translated into useful applications. However, science has not always been investigative or effectively translated into useful application, and when it has, the translation often consumed a significant amount of time and faced considerable implementation obstacles.

Because of problems with translation time and implementation obstacles, the medical profession has invested a great deal of time and effort in developing effective translational medical science. The medical profession's objectives have been to increase availability, quality and speed of care in response to patient needs. Their approach is the exemplar for other professions to implement translational science.

The material degradation process, which can result in corrosion, closely resembles the human physical degradation process; and the material degradation prevention, control and restoration process also closely resembles the human medical prevention, control and restoration process. Therefore, analysis of translational medical science provides a valuable model for the design and implementation of translational corrosion science.

Translational corrosion science integrates research scientists, corrosion engineers, logistics engineers, manufacturing designers and engineers, acquisition managers, academic institutions, professional societies, structural and metallurgical engineers, inspection, treatment and repair technicians, and other corrosion subject matter experts who cooperate, collaborate, share information and collectively make decisions. Sentient teams translate research to solve specific corrosion problems into successful solutions accepted and applied in the user community. SSPC is an important stakeholder in broad range of corrosion prevention, control and restoration solutions.

Corrosion: The Destructive Stowaway on Marine Vessels - Determining the Cost-Benefit of Protective Marine Coating Systems

Speaker: Bud E. Senkowski, PCS, P.E.

Company: KTA-Tator, Inc.

Description: Marine coating systems installed aboard commercial and military vessels are exposed to extremely aggressive environmental conditions during their maritime operation.

A key element in prolonging the useful life of any ship, both commercial and military, lies in the selection and installation of cost-effective corrosion control methods and materials at new build, followed by an effective painting and preservation program to minimize the corrosive effects of operating in a marine environment, extend the service life and maintenance requirements of the installed systems, and thereby reduce the total operating cost (TOC) for the vessel.

This presentation provides guidelines for calculating approximate installed costs of coating systems, expected coating service lives for each system identified, and methods for determining the most cost-effective systems to use. The effect of maintenance sequences on long-term costs and system performance is also reviewed.

The analysis utilizes trade studies from coating manufacturers, scholarly papers, technical reports, engineering studies and specifications from maritime and naval sources, and technical and consensus organizations that focus on the design, implementation, and testing of marine coating systems.

New coating technologies that show promise of providing enhanced corrosion protection are identified and their relative contribution to lowering the operational costs of shipboard systems are demonstrated through the use of software programs that predict coating service life and maintenance requirements following initial installation.

A Study on the Improvement of Weatherability of Epoxy Coatings for Marine Exposure Structures

Speaker: SangMoon Shin

Company: Hyundai Heavy Industries Co.

Description: Outdoor exposure coatings used on ships and marine structures can be degraded under weather conditions such as sunlight, water, temperature and so on. Due to this, high weathering resistant coatings such as polyurethane and polysiloxane are being applied to exposed parts like the deck-house and topside of vessels, whereas, the epoxy coatings with good workability have been widely used for the cargo hold because its damaged areas, caused by surface contaminations and welding operation, need to be repaired so frequently. However, the weathering defects of the epoxy coating such as discoloration, chalking and gloss reduction are occurring due to the photo-oxidation reaction of aromatic groups in the epoxy resin under the UV light. In the shipyard, the discoloration of coated films after a six-month lapse can be observed clearly by the naked eye. In this case, the color difference was above 5. The pressing need for most shipyards is to prepare the proper countermeasure and apply the new coating materials, which can improve the discoloration resistance without compromising coatings performance. In this study, the effects of fatty acid adducted epoxy resin content on overall coating performance were evaluated as a means to develop epoxy coatings with a superior weathering resistance.

Low Solar Absorbing Epoxy Marine Decking

Speakers: Jing Zeng, Ph.D., PCS and David Robinson
Company: ITW Engineered Polymers

Description: Low solar absorbing (LSA) attributes are important for marine decking materials. Reduced solar heat absorption can not only improve the condition of living and working spaces beneath any deck, but also help protecting electronics and equipment. This article will review current LSA technologies and present the study on how to improve the solar reflectance and weather resistance of epoxy marine decking.

Session 4: Understanding Building Enclosure Coatings – Project Design and Inspection Workshops – Part II - Sponsored by: Durability + Design

QA During Installation Workshop

Speaker: Ken Trimmer
Company: KTA-Tator, Inc.

Description: This workshop will address all of the inspection steps necessary to properly implement the requirements of the specification. This would include hands-on use of instruments for verifying each stage of the processes: cleaning, ambient conditions, moisture testing, wet and dry film thickness, and continuity (air leak detector). The workshop will begin with a power point presentation describing the inspection sequence and the general use of the inspection equipment.

WEDNESDAY AFTERNOON – FEBRUARY 4

Session 1: Workshop: Preventing Premature Coating Failures

Preventing Premature Coating Failures

Speaker: Michael O'Brien
Company: MARK 10 Resource Group, Inc.

Description: Winston Churchill once said, "Success is going from failure to failure without losing enthusiasm". In the coatings industry, companies cannot thrive or survive for very long if generating premature failures becomes their measure of success.

This practical and informative tutorial, loaded with pictures from actual failures, will discuss how to prevent premature coating failures. Premature coating failures continue to cost contractors, facility owners, shipbuilders, and paint manufacturer's substantial sums of money every year in additional labor and materials, legal fees and in opportunity costs. These out-of-pocket costs are non-budgeted items therefore they come directly from bottom line profits. However, more importantly, premature coating failures often cause irreparable damage to customer relationships and future business opportunities with existing clients.

This tutorial is based on many real-life coating failures, investigated by the presenter during his thirty-five year involvement in the coatings industry. It is filled with numerous examples from approximately thirty different failure investigations with pictures of actual coating failures on steel, hot-dip galvanizing and concrete.



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Session 2: Coating Types – Part I

Penetrating Sealer Over Latex Acrylic – Good or Bad?

Speakers: Greg Richards and Beth Steimle
Company: KTA-Tator, Inc. and TY Lin International

Description: A case study of the use of a 100% solids epoxy penetrating sealer as a tie coat between a tightly adhered latex acrylic and an aliphatic polyurethane.

Improving Performance of Epoxy-Polysiloxane Coatings

Speaker: Constantine Kondos
Company: Momentive Performance Materials

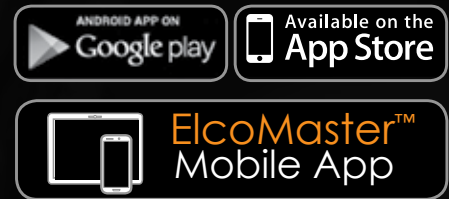
Description: A new resin technology incorporated into the Epoxy-Polysiloxane Part A portion of a two-component coating system, using an amino-silane curing agent, has shown significant improvements in flexibility, gloss and color retention. Corrosion resistance and adhesion to non-sandblasted metal substrates has also shown improvements. The new resin technology is suitable for low VOC and HAP's coating systems. The new resin technology is inherently low in viscosity and this provides benefits during high shear coating spray application. The new resin technology can be incorporated into the grind paste or added as a post-addition to the coating formulation without affecting the coating's final performance.

Results of QUV-B, Conical Mandrel Bending after heat aging, and corrosion resistance of fully formulated coatings comprising the new resin technology will be presented versus Control Systems.

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Coal Tar Enamel Service Life Extension

Speaker: Allen Skaja, Ph.D., PCS
Company: US Bureau of Reclamation

Description: Coal tar enamel was a remarkable coating that provides an extremely long service life, under the right conditions. The Bureau of Reclamation has seen coal tar enamel provide corrosion protection at Hoover Dam for over 80 years and is still providing corrosion protection. When temperatures remain constant, inside penstocks and outlet pipes that were buried or go through a dam or a tunnel, the coal tar enamel is in excellent condition with minor damage. However, coal tar enamel does have some limitations, when temperatures fluctuate from hot and cold the enamel forms alligator cracking. Coal tar enamel has failed on many of the above ground penstocks and outlet works in Reclamations infrastructure requiring complete removal and replacement with epoxy or polyurethane coatings. This presentation will cover the proper methods and procedures for spot repairing and salvaging minor damaged coal tar enamel.

Isocyanate Free Polyurethane Coatings for Industrial Metal Applications

Speaker: Paul Popa
Company: The Dow Chemical Company

Description: Two component polyurethane coatings are used in a variety of applications including industrial maintenance. These coating systems were introduced in the 1970's primarily as topcoats; characterized by their excellent weatherability, toughness, and chemical and stain resistance. When formulated as ambient cured systems, traditional two component polyurethanes typically sacrifice cure time for pot life unless plural component application equipment is employed. This presentation describes a novel ambient cure, two component isocyanate free polyurethane coating technology. One significant benefit is the ability to decouple pot life from cure speed resulting in coatings with faster return to service and higher throughput. Additional performance attributes and benefits such as good weatherability and chemical resistance in various industrial metal applications will also be highlighted.

Old, New and Forgotten Wisdom for Tank and Vessel Linings

Speakers: Mike O'Donoghue, Ph.D. and Vijay Datta, MS
Company: International Paint LLC

Description: In the last decade, against a backdrop of stringent environmental legislation, enhanced tank lining performance requirements, economic constraints, and so-called "value-engineering", several new technologies for tank and vessel linings have been introduced into the market place.

In the context of old, new and forgotten wisdom, this paper probes critical issues that intrinsically have a significant impact on either the success, or failure, of tank and vessel lining applications.

An accelerated laboratory testing program was carried out to investigate the performance of nine epoxy linings used, or intended for use, in oil and gas production systems. Candidate epoxy coatings were either proven commercial performers, experimental in nature, or those based on new generation formulations. Thin film multi-coat systems and single coat, solvent free (plural component and single leg airless spray applied) coatings were tested in sweet and sour crude oil.

The efficacy of a proprietary cleaner intended to decontaminate abrasive blasted steel was also investigated.

Session 3: Concrete Protection Solutions

Resurrecting a Concrete Landmark

Speaker: Todd Gomez, PCS
Company: VersaFlex Incorporated

Description: Outside the McGregor Memorial Conference Center stands a 12,000 sq. ft. concrete decorative reflection pool that was not in use due to the deteriorated concrete. The McGregor Memorial Conference Center was listed on the National Register of Historic Places in 2011. The original pool was designed by the famous architect, Minoru Yamasaki and was constructed in 1958. However, it had not been in operation for over a decade until a group of construction professionals showed up to restore and waterproof it with polyurea.

The spray-applied, two-component, ambient-cured polyurea, which features no VOC's and low odor, can be applied at colder temperatures than current available coatings. This wider temperature application range extends the season for restoring outdoor concrete substrates. The technology provides quick dry times; leading to faster return-to-service and helping applicators and owners meet tight deadlines.

Surface Applied Organofunctional Silane Corrosion Inhibitors for Reinforced Concrete Structures

Speaker: Peter K. DeNicola
Company: Evonik Corporation

Description: Sustainable concrete repair products can extend the time in between repair cycles and increase the service life of a structure. This presentation will show that based on 10+ years of field and laboratory testing, Organofunctional Silane Corrosion inhibitors are effective at corrosion mitigation, thus decreasing the frequency and extent of repairs. Evaluation on new concrete also showed a predicted increase in time to corrosion initiation of over years when compared to untreated reinforced concrete specimens. Modeling results were verified in a 2-year laboratory study.



Bio Based Waterborne Floor Coatings with Enhanced Flow and Appearance

Speaker: Stephen Hellems
Company: Nuplex Resins LLC

Description: The use of sustainable materials in the floor market has gained wide spread interest in recent years. Bio based raw materials contribute significantly to these efforts and are used to prepare environmentally friendly coatings. Castor oil based emulsions are used as polyols in waterborne polyurethane coatings. These systems have outstanding chemical resistance and good durability. But they have inherent issues like very short pot life, poor appearance and flow properties.

In this presentation we will discuss the development of a new castor oil based polyol emulsion that can be used effectively in waterborne polyurethane applications. The modified polyol emulsion was formulated with polymeric MDI based crosslinker, pigments and additives to prepare thick concrete coatings. The appearance of the system, flow, behavior, sealing and adhesion characteristics, surface roughness and pot-life of the formulations were compared with the control. All the above information and the coating performance properties will be presented in detail.

Properties of Epoxy Mortars and Best Practices for Application

Speaker: Stacy Womack
Company: Belzona Mountain States

Description: The use of polymer technology on concrete and steel applications has grown over the years, due primarily to advances in research and development, as well as testing and product pre-qualification processes set in place by the manufacturer. These advancements have allowed for new ways of tackling problems involving erosion and corrosion, as well as chemical attacks on a wide range of equipment and structures, saving both time and money for the client when compared to conventional repair procedures. This presentation will focus on the use of polymer technology on a wide variety of buildings, structures, machinery, and equipment to prevent these problems. Some best application practices will also be covered as this is the primary reason for successful application.

Measuring Vertical Concrete Surface pH: Viable Test Method for Severe Service Exposures

Speakers: Vaughn O'Dea, PCS and Robert Maley, PCS
Company: Tnemec Company, Inc. and Corrosion Probe, Inc.

Description: External chemical attack and reduction in concrete durability occurs through the action of aggressive ions, such as chlorides, sulfates, or of carbon dioxide. The pH test of a concrete surface is primarily required to confirm the removal of acidic contaminants prior to the application of high-performance protective linings.

SSPC-SP13/NACE No. 6 and NACE SP0892 reference ASTM D4262 as the test method used to measure concrete surface pH. This method was derived from the resilient floor tile industry to confirm that acid etched concrete surfaces are properly neutralized. A test method is needed that will reliably determine the concrete surface pH on vertical services.

"All Fouled Up" – An Innovative Solution

Speaker: Kevin Morris

Company: The Sherwin-Williams Company

Description: Within the wastewater treatment process, the growth of soft fouling materials (algae) create problems such as, total suspended solids issues, false BOD readings, clogged pumps, and reduced flow rates through the weirs of clarifiers. Furthermore, dead or dying algae can cause additional odor concerns. This phenomenon has cost municipalities and tax payers untold amounts of money due to the required maintenance dollars spent to correct this problem. The speaker will present the attendees with a view of some of the previous methods used to correct this problem and the effects caused by these methods. It will also, discuss how the transfer of technology from another market segment is providing the industry with a solution that presents no side effects that will have to be addressed in the future, and the thought process and testing that lead to this coating technology being considered as a potential solution. Finally the presenter will discuss a case study where silicone foul release coatings have been used to remediate the issues with soft fouling on a clarifier launder trough in a large municipality in the U.S.

Session 4: Understanding Building Enclosure Coatings – Project Design and Inspection Workshops – Part III - Sponsored by: Durability + Design

Building Science/WUFI Workshop

Speakers: David de Sola and Kevin Brown

Company: Zive and KTA-Tator, Inc.

Description: This workshop will address building science, and explain why coatings are an integral component of the building assembly for both new construction and maintenance. It will introduce WUFI®, a computer-based program used to simulate hygrothermal (heat and moisture) behavior of building assemblies, and demonstrate how WUFI® can be used in building envelope design for new and restoration building projects. WUFI® modeling

will illustrate how moisture problems are created or can be minimized by adjusting the placement of thermal, air and vapor barrier materials, including coatings, based on both micro and macro climates. Attributes of coatings such as permeance and number of coats will be associated to the performance of the building envelope.



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THURSDAY MORNING – FEBRUARY 5

Session 1: Mini Session: Failure Analysis of Paints and Coatings for Wind Towers, T & D Pipeline, and Utility Structures Case Studies

Failure Analysis of Paints and Coatings for Wind Towers, T & D Pipeline, and Utility Structures

Speaker: Mehrooz Zamanzadeh, Ph.D.

Company: MATCO Services, Inc.

Description: In this introductory presentation, failure analysis methodology will be applied to the principal mechanisms by which paints and coatings fail during service.

Session 2: Mini Session: Industry Training/Certification Programs

What are SSPC-ACS 1, CAS and ATT?

Speaker: Earl Bowry, PCS

Company: Jotun Paints, Inc.

Description: This presentation will discuss the practice of the ACS 1 Applicator Certification Standard (SSPC-ACS 1), and how SSPC's Coating Application Specialist (CAS) Certification Program complies with it. We will also cover how a contractor can acquire and use the SSPC Applicator Training Specialty Module CDs combined with the Applicator Train-the-Trainer (ATT) Program curriculum, to help his employees meet the requirements of SSPC-ACS 1 and gain the title: Coating Application Specialist.

Session 3: Mini Session: Corrosion in Concrete

Selecting Protective Coatings for Corrosion Protection of Anaerobic Digesters: How, When, and Why

Speaker: Randy Nixon

Company: Corrosion Probe, Inc.

Description: Protective coatings are used in anaerobic digesters for both corrosion protection and for gas tightness. Digesters, if properly operated, are not corrosive to either concrete or carbon steel substrates. This presentation will explain the basics of how digesters work chemically and demonstrate the conditions under which corrosion does occur when the operating conditions are not controlled adequately. When this is the case, the right protective coating system is of paramount importance as the conditions are extremely corrosive. This presentation will also describe the author's experience with the various types of biosolids digesters including floating steel covered, fixed steel and concrete covered, German style, and egg shaped vessels. Through this examination of the digester types, the commonplace corrosion problems will be identified along with the appropriate criterion for selecting protective coating systems.

Basics of Corrosion in Reinforced Concrete

Speaker: Fred Goodwin

Company: BASF Construction

Description: Concrete is the second most common man-made material after potable water yet it is a complex material that is poorly understood. Steel reinforcement is added to improve concrete's tensile strength and ductility and it is initially protected by the high pH and depth of cover concrete. Eventually, due to the ingress of deleterious ions, lowering of the pH from carbonation, or electrical potential changes around the steel, corrosion will occur. Steps can be taken throughout the concrete life cycle to minimize this damage through prevention, protection, or mitigation of corrosion. This presentation will discuss the properties of concrete, the causes of concrete damage and deterioration, issues related to corrosion of reinforcing steel in concrete, and options to evaluate and reduce the effects of concrete deterioration.



Session 4: Mini Session: Green Industrial Coatings



Creating More Sustainable Industrial Coatings: Driving VOCs of High Performance Waterborne Direct-to-Metal Coatings Below 50 g/l

Speaker: Leo Procopio

Company: The Dow Chemical Company

Description: Lowering the volatile organic content (VOC) of industrial coatings has become a requirement in many reformulation and new coating development efforts, oftentimes in order to meet increasingly strict regulations. Driving VOC to lower levels and performance to higher levels can also offer a more sustainable coatings solution for the end-user. Lowering VOC and maintaining (or improving upon) high performance is often the goal when developing a new formulation, but the two objectives can be at odds with each other. For waterborne acrylic direct-to-metal (DTM) finishes and primers, the challenge is to lower VOC while maintaining film hardness and good film formation. Hardness affects film properties such as block, print, and dirt pickup resistance, while film formation is critical for latex coatings because it strongly influences barrier properties, i.e., corrosion resistance. The industry is now searching for acrylic resins which can be formulated below 50 g/L VOC, and yet have excellent hardness, corrosion resistance and durability properties. This presentation introduces a new self-crosslinking acrylic technology for use in industrial DTM coatings, which deliver these desirable properties in a single binder. The unique balance of properties for coatings based on the new binder will facilitate its use in light and medium duty service environments for the protection of steel, other metals and concrete. Performance in corrosion-resistant primers and DTM finishes under 50 g/L and for the protection of steel will be described, including a comparison with currently available commercial technologies.



Green Paints...From (Paint is a Part of the Problem) To (Paint is a Part of the Solution)

Speaker: Nawras Rimawi

Company: Al-Jazeera Paints, Inc.

Description: "If we continue with business as usual, by the 2030s we will need two planets to keep up with humanity's demand for goods and services. But there are many effective ways to change course" WWF Living Planet Report 2008 Paint is a part of the problem...paints were among the main causes for SBS (Sick Building Syndrome) containing hazardous materials like formalin, ammonia, APE and high VOC.

Green Paints...major steps were taken to remove risky materials and substitute them with more green materials and many standards were developed to determine the approved levels of some others to manufacture Eco-Responsible Paints.

Paint is a part of solution...the next generation of paints will not be satisfied with only being "Green Paint". The generation of paints will provide more and contribute to the sustainability principles by providing maximum durability, and being a functional smart paint.

This presentation will discuss practical results for using some of the new generation of smart paints like Formaldehyde-lock technology paints, green paint removers, Agion Antimicrobial sterilizing paints, and how much they would participate in being part of the solution.

International Spotlight Session

Global Environmental Regulations Drive New Technologies in Epoxy Coatings

Speaker: Marcelo Rufo

Company: Air Products and Chemicals Brazil

Description: Global Environmental Regulations have driven many coatings developments over the last decades. Today's regulations around worker safety and environment protection are seen as important drivers in new product development. More recently such regulations are spreading more widely, as people want to live on a planet where everyone can enjoy a better quality of life, breathe clean air, where rivers and oceans are preserved, and the impact of humans on wild life is reduced. There is increasing pressure from society on all industrial activities to reduce and or eliminate the use of raw materials that could have negative impact on the environment or on the health of people consuming or handling products that uses such raw materials.

This presentation will review how Global Environmental Regulations and initiatives such as LEED, are impacting the development of new technologies in the industrial coatings market and more specifically, the industrial epoxy market. An overview of technology developments driven by environmental regulations in many countries will be reviewed, starting from the need to develop low VOC and also the need for emission-free technologies.

It is important to keep in mind that Industrial Epoxy Coatings are typically used to protect many different substrates, including steel, concrete and aluminum, just to name a few. The desired changes driven by Global Environmental and Worker Safety Regulations cannot impact the level of protection offered by existing technologies and some specific markets require increased performance while complying with the newest environmental regulations.

Finally, new developments in epoxy curing agent technologies that allows formulators to develop new coatings that meet the need to be compliant with the challenging environmental regulations and, in some cases, with improved performance will then be described.

International Spotlight Session Q & A

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THURSDAY MID-MORNING - FEBRUARY 5

Session 1: Panel Discussion: Women's Leadership Forum - Sponsored by: Limnes & Stonebridge

Women's Leadership Forum

Moderator: Julie Hough, Trace Industrial Supply, LLC

Description: A panel discussion among women leaders in the corrosion and specialty coatings industry.

Topics will include:

- How to get to the top in business
- Smart negotiating tips
- Using your femininity as an asset
- Asking the right questions
- Finding the right path and job search tips for women
- Creating your template for success
- A women's guide to breaking the glass

Session 2: Workshop: Proper Use of Coatings Inspection Instruments

Proper Use of Coatings Inspection Instruments

Speaker: Matthew Fajt

Company: KTA-Tator, Inc.

Description: This workshop will focus on the practical description of inspection instrumentation, followed by a series of hands-on workshops. Small groups will work with the inspection equipment to:

- Measure Ambient Conditions
- Measure Surface Profile
- Measure Coating Thickness with Type 2 (electronic) Dry Film Thickness Gages
- Detect Pinholes & Holidays in Thick Film Coatings using High Voltage Detectors

Manufacturer's technical representatives will be on hand to assist with proper use of electronic dry film thickness gages.

This workshop is based on the text, "Using Coatings Inspection Instruments-3rd Edition" by William D. Corbett (©2012 KTA-Tator, Inc.).

Session 3: Panel Discussion: SSPC-SP 13/NACE No. 6 Surface Preparation of Concrete: Industry Standard or Industry Guideline?

SSPC-SP 13/NACE No. 6 Surface Preparation of Concrete: Industry Standard or Industry Guideline?

Moderator: Heather Stiner, PCS, SSPC: The Society for Protective Coatings

Panelists: Vaughn O'Dea, PCS, Tnemec Company, Inc.; Randy Nixon, Corrosion Probe, Inc.; Fred Gelfant, Stonhard, Inc.; Fred Goodwin, BASF Construction Chemicals, Inc.

Description: An informal roundtable meeting was held at SSPC 2014 to discuss the SSPC-SP 13/NACE No. 6 joint standard. The discussion centered on whether this standard should be replaced by individual surface preparation standards and converted to an industry guideline.

This panel of concrete practitioners will offer their perspectives regarding the SSPC-SP 13/NACE No. 6 joint standard.



Session 4: Green Evolution Coatings



Methodology for Measuring Energy Savings by the Use of Highly Reflective Coatings

Speaker: Francisco Cortes

Company: DuPont Titanium Technologies Mexico

Description: The effect of high solar reflectance on roof coatings has been widely researched as an effective way of reducing heat gains inside a building. Moreover, significant energy savings along with decreasing greenhouse gas (GHG) emissions have been estimated by reducing the inside cooling loads of the buildings using this technology. However, real energy savings data for residential buildings is scarce and difficult to find. To address this concern, two identical houses in size and construction system were built in the outskirts of Monterrey, Mexico. Energy consumptions using different waterproof coatings with different values of solar reflectance are presented. The results show that a white, highly reflective, waterproof coating reduces the cooling load by 12% against a conventional white waterproof coating. Furthermore, the white, highly reflective waterproof coating reduced the cooling load by 44% against a red waterproof coating and by 51% against a black asphalt roof coating. These results show that the use of highly reflective coatings is a very effective technique to improve the overall energy efficiency on residential buildings.



Why Green Solvents are Good for Your Business and Not Just the Environment

Speaker: Dave Pasin

Company: TBF Environmental Technology

Description: The purpose of this presentation is to examine what constitutes a Green Solvent, the differences between what are classed as Green Solvents, and their safety and use in a variety of applications which range from formulation, surface preparation and cleaning. We will discuss the short and long-term effects typical solvents have on the health of the worker and the environment. It will also discuss the advantages of using Green Solvents to the company in its applications. The use of Green Solvents will also help the company to reduce its regulatory burdens, improve regulatory compliance, improve its public relations and sales, and improve productivity through reducing workplace exposure and injuries related to exposure of toxic solvents.



"In Zinc We Trust?" - The Path to Novel Environmental Friendly Corrosion Inhibitors

Speaker: Dr. Lars Kirmaier

Company: Heubach GmbH

Description: Environmental regulations are the driving force for paint producers to re-evaluate their products and re-formulate with non-toxic alternatives. In the protective coatings world, zinc containing anticorrosives have been established as the state of the art in corrosion inhibition technology. Nevertheless, there is a growing interest in zinc-free pigments that not only meet all the environmental demands of today and the future but also provide the performance and cost application latitude in different resins over various substrates.

The most important topic during this tricky development work is adjusting essential parameters like the appropriate choice of cations and anions, solubility, particle size, particle size distribution and using synergistic partners to obtain maximum long-term protection while preventing stability issues at the same time. This presentation will demonstrate the strong effectiveness of a novel zinc-free anticorrosive pigment, not only in accelerated weathering tests, but also proved by modern electrochemical test methods.



Novel Waterborne Technology Paves a New Roadway for Alkyds

Speaker: Jamie Dyczkowski, Ph.D.

Company: Reichhold, Inc.

Description: Waterborne alkyds are increasingly being utilized as stringent regulatory legislation continues to place pressure on coatings manufacturers to offer products with a more attractive environmental profile. Recently, advancement in waterborne alkyd chemistry has provided a clear path for the introduction of the first waterborne biobased resin for pavement marking coatings. By careful monomer selection of the alkyd phase and the proper balance of the emulsification components, a shear stable alkyd latex resin with excellent performance characteristics has been achieved. This presentation will describe synthesis and formulation considerations highlighting the benefits that this technology offers the traffic coatings market. Benchmarking studies against commercially available solvent and water-based pavement coatings exhibit performance characteristics that make it a valid alternative to current technologies.



"Construction Drying" - The Economic and Environmental Benefits

Speaker: Mark D. Lebeck and Bruce Funderburgh

Company: Sunbelt Rentals Industrial Climate Control

Description: Construction drying and climate control for major projects, including Mission Critical Campuses (Data Centers), Healthcare/Institutional Facilities, and Major Construction/Retrofit Opportunities have become a necessity and not a luxury. Quick turnaround and timely completion have proven to be huge economic factors to facility owners and general contractors alike. With the advent and evolution of VOC regulations, AIM requirements and LEED Criteria, coupled with this economic need, controlled construction drying and climate control technology demand has increased exponentially.

This presentation will visit the latest criteria in concrete drying to ensure compatibility and to minimize the hygroscopic properties of today's water borne, environmentally compliant floor adhesives, gypsum board/sheetrock and paint drying to ensure a timely turnaround time, and monitored climate control to ensure a safe mold and airborne pathogen free environment. Issues and ideas for added LEED credits will be discussed as well.

Standards and guidelines published by the American Concrete Institute, ASHRE and applicable ASTM test methods will also be topics for discussion. Finally, examples of successful projects and techniques to achieve the required results will be presented.



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Session 1: Inspection**Methodology for Coated Infrastructure Inspection by Mobile Potentiostat**

Speaker: Bobbi Jo Merten, Ph.D.

Company: US Bureau of Reclamation

Description: A test methodology is shown for field application of electrochemical impedance spectroscopy (EIS). The method utilizes low-cost, accessible materials to secure a temporary solution cell to the infrastructure's coated surface. A laptop computer provides the power source and operating system for the mobile potentiostat during EIS data collection. This data provides a quantitative measure of the coating condition. The objective of this work is to incorporate EIS testing into standard coatings inspection to estimate remaining service life for the intact coating, which improves coatings maintenance planning for facility owners.

The first field demonstrations took place at U.S. Army Corps of Engineers projects at Ozark-Jeta Taylor Lock and Dam and Wilbur D. Mills Lock and Dam along the Arkansas River. Tainter gate structures containing a three-coat vinyl system provided optimal conditions for EIS data collection. These results were compared to laboratory EIS data for vinyl coatings to estimate the remaining coating service life. An atmospheric red lead primer with Aluminum phenolic topcoat was also tested to demonstrate the method.

This presentation will focus on the most ideal circumstances for setting up and completing EIS testing in a single inspection. Variables to consider include coating type, exposure conditions, saturation level, access, and surface geometry/orientation. The mitigation of potential noise sources is also addressed to ensure accurate data and interpretation.

Pull-Off Adhesion Testing OG Coatings - Improve Your Technique

Speaker: John Fletcher

Company: Elcometer Limited

Description: Pull-off adhesion testing is widely used to assess the protective coating process and to determine if a coating is fit for service in new construction and for repairs to existing structures. The result is often critical to the acceptance or rejection of a coating process, as the adhesion value quoted by the paint manufacturer can be adversely affected by aspects of the coating process. Low adhesion values are indicative of premature failure of the coating and are often due to inadequate surface preparation of the substrate.

ASTM D4541, BS EN ISO 4624 and BS EN ISO 16276-1 describe several different test apparatus; however, the basic approach of gluing a test dolly to the coated surface and then exerting a perpendicular force to the surface in an effort to remove both the dolly and the coating from the substrate is common to all these standards. A measure of the adhesion of the coating system is the force at which the coating fails and the type of failure obtained.

Trials have demonstrated that many aspects of the testing method, such as the mixing of the glue, the preparation of the coating surface and the face of the dolly and the temperature of the test, all affect the results.

This presentation will investigate the effects of any deviation from the proscribed method in every aspect of the test. Each aspect is examined in turn, the results tabulated and the potential effect on a valid adhesion test result is discussed.

Paint Inspection from the Coating Manufacturer's Perspective

Speaker: Troy Fraebel, PCS

Company: The Sherwin-Williams Company

Description: Quality Assurance/Quality Control (QA/QC), often referred to as inspection, is critical to the success of a protective coating or lining project. Several parties can and do get involved in inspection including the owner, specifier, third party inspector, general contractor, painting contractor, equipment supplier, and coating manufacturer. Understanding how QA and QC work together, how the parties work together, and the resulting document will help assure a quality application, satisfied customer, and a profitable project.

Replica Tape - Relating 3 Surface Profile Parameters to Pull-Off Adhesion

Speaker: David Beamish

Company: DeFelsko Corporation

Description: Steel surfaces are frequently cleaned by abrasive impact prior to the application of protective coatings. The resultant surface profile must be accurately assessed to ensure compliance with job or contract specifications.

But is profile height, which is the most common measured parameter, a good indicator of long term coating performance?

This presentation reports on remarkable recent testing that compared numerous profiles with pull-off adhesion. A simple, low-cost field device was used to obtain 3 profile parameters from 1 replica tape measurement (profile height, peak count, and surface area). Test surfaces were re-measured with complex, expensive interferometric laser profilers and results were compared to replica tape results.

Session 2: Coating Types – Part II**Close Encounters of the Third "Crude-Oil" Kind**

Speakers: Mike O'Donoghue, Ph.D. and Vijay Datta, MS

Company: International Paint LLC

Description: This presentation compares and contrasts the performance of a variety of new technology linings for tank, vessel and railcar applications where the hydrocarbon media is shale oil (tight oil), sour crude oil, and sweet crude oil.

Accelerated laboratory tests using an autoclave (3000F and 250 psig), an electrochemical impedance spectroscopy, and parallel scribe adhesion were used to determine the high temperature resistance, barrier properties and adhesion to carbon steel of two-coat thin film systems and single coat, solvent free lining systems.

Case histories are used to illustrate the use of these lining technologies in North America in shale, sour and sweet crude oil service.



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Use of Penetrating Primers

Speaker: Duane Hough, PCS

Company: Champion Painting Specialty

Description: This presentation will discuss the strengths and weaknesses of penetrating primers, describe past projects coating systems that incorporated penetrating primers and will also discuss why penetrating primers made sense for those projects (I-595 existing bridges - overcoat, Port Everglades cranes - overcoat, Port Everglades ethanol tanks - overcoat, Miami Metro Zoo Amphitheatre Canopy – New Steel.) Finally we will review the opposing schools of thought regarding various uses of penetrating primers and discuss specifying penetrating primers.

Time, Money and Tank Linings

Speaker: Miles Buckhurst

Company: Jotun A/S

Description: What is the cost of tank linings? Are we able to answer this properly? Do we take into account all the factors, and do we see the main cost driver?

It is a well known fact that time is money, and if we take into account the cost of being out of service or a delay in beginning operations, then the cost of time is far greater than the individual costs of producing equipment and coating them.

This presentation will look into the possibility to save time during the coating operation of tanks, but not at the cost of the performance of the coating. We will discuss how to realistically apply the coatings in such a way that the reliability is increased during operational time and yet allowing the application process to be speedy and bringing the tanks into service quickly. Success of this operation is using coatings that are capable of being used in this way and understanding what makes the operation a success and what will eventually create a failure, so this can be avoided. Ease of application and simplification allow the applicator to be flexible during the process increasing the chance of a successful job and control the end result. All of this will result in a longer lifetime of the coating and even more time saved. Resulting in improved profitability of the operation.



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Session 3: Concrete Floor Protection

Using Forensic Science to Determine Causes of Failure of Polymeric Coatings

Speaker: Jon Asselanis

Company: Applied Materials & Engineering, Inc.

Description: Often when polymeric flooring systems fail the cause of the failure is not known. Forensic testing can be used to eliminate some causes and indicate evidence of other possible causes of failure. A basic knowledge of what test can be performed and what information can be gained through the process will benefit anyone investigating coating failures.

This presentation will discuss the proper protocol for performing an initial on-site inspection, provide the laboratory with essential and accurate background information, and how to extract samples, and then package and deliver them to the testing facility. All participants will learn the difference between chemical and physical testing and what information or data can be collected from these tests and how it is used. Knowledge gained from the presentation will enhance the attendees basic skill set in failure analysis.

Moisture Test Methods, Comparisons, Commonalities and Dissimilarities

Speaker: Steve Schroeder

Company: Crossfield Products Corp.

Description: It is now widely understood that moisture emissions from concrete substrates are a major concern when applying impermeable coatings, linings or floorings. There are many ways which the concrete can be tested to detect moisture in, or emitting from it. However, there remains to be many various theories and opinions regarding test methods and interrupting the results.

This presentation is based on a practical study that was performed in an effort to exemplify the various field conditions and obstacles encountered in performing these test in typical field conditions. It looks at all the accepted standard methods and examines both the similarities and differences. How they are performed, what they are designed to report, common problems, and most importantly how their results can be skewed or misinterpreted.

Understanding Concrete Coatings Adhesion Testing Standards and Procedures/Testing in Accordance with ASTM 7234

Speaker: Fred Gelfant

Company: Stonhard, Inc.

Description: There are many standards published for the testing of the adhesion of coatings, linings and floorings to concrete substrates. This presentation will examine how to select the correct test method, perform the test, and properly report the data.

Additionally, procedures for testing adhesion of coatings to concrete substrates have changed in recent years with the publication of the ASTM standard ASTM D 7234. Previously the most common adhesion test used was ASTM D 4541, this adhesion test has been modified and now refers uses to ASTM D 7234 when testing adhesion to concrete substrates. Attendees will learn how to use this test method in practical applications.

Identification and Treatment of Cracks and Joints in Concrete Substrates

Speaker: Justin Watt

Company: Crossfield Products Corp.

Description: Understanding the different types of crack and joints in concrete substrates is an essential skill for a coatings professional. It is a necessary function to be able to determine the cause or origin of cracking in the concrete, determine if is dynamic or static and develop a work plan to mitigate the crack in the finished coating or flooring.

Identifying the different types of joints is just as important of a task as identifying types of cracks. Then determining proper treatment of the joint to successful cover or treat to allow for movement. This presentation shows how to identify crack and joint and proper treatment options for all conditions.

Session 4: Corrosion Prevention in the Military

Corrosion – It's A Matter Of Choice

Speaker: Dr. Roger D. Hamerlinck

Company: Office of the Assistant Secretary of the Army - Acquisition, Logistics and Technology

Description: In this presentation, Dr. Hamerlinck will discuss the question "Why do 'we choose' to allow corrosion on our military equipment and facilities/infrastructure?" He will also explain why "At the end of the day, our performance in the area of prevention and control of corrosion is the sum of all our choices." His conclusion...there is an "acceptable" level of corrosion that has an "acceptable" impact (cost, availability, or safety) on our military equipment and facilities/infrastructure. Is that acceptable impact affordable?

Single-Component Polysiloxane: An Advanced Coating for Navy and Surface Ships Topsides

Speaker: Erick B. Iezzi, Ph.D.

Company: Naval Research Laboratory

Description: Silicone alkyds are single-component (all-in-one-can) systems that are easy for sailors to apply (via brush or roll), provide an indefinite pot-life in a closed can, and will cure under harsh marine conditions, which are why these coatings have been utilized on the exterior topsides of Navy surface ships since the early 1960s. However, these "user friendly" coatings provide limited color and gloss retention, limited resistance to hydrocarbons, in addition to limited surface hardness, which results in staining from running rust and soot. Recently qualified two-component polysiloxanes provide improved performance versus silicone alkyds, yet they require the mixing of components before application, which can lead to poor performance and an unsightly appearance if not mixed properly, in addition to the generation of waste from unused mixed material.

Three years ago, the Naval Research Laboratory developed and tested a novel isocyanate-free, low VOC and HAPS-free single-component polysiloxane coating for Navy surface ship topsides. The coating demonstrated excellent color retention on surface ships versus silicone alkyds and two-component polysiloxanes, but did not possess optimal dry times or adhesion to the high-solids anti-corrosive primers typically used by sailors for touch-up and repair. The polymer in the single-component topcoat was modified to address these issues, and the revised formulation has since been qualified to MIL-PRF-24635 specifications, which includes demonstrations on surface ships. This paper will discuss the laboratory qualification testing of the revised topcoat, in addition to demonstrations on surface ships in several locations and under various conditions.

NSRP SP&C Panel Update

Speaker: Arcino Quiero, Jr.

Company: Newport News Shipbuilding

Description: This presentation is an overview of the National Shipbuilding Research Program (NSRP) Surface Preparation and Coating (SP&C) Panel's mission to reduce the cost of construction, maintenance, and repair of US Navy ships. The Panel's "Specs to Decks" approach; research, evaluate, develop, and sustain current and emerging technologies that will reduce cost and maintain or enhance quality for coatings and corrosion control of new construction and repairs of US Naval and commercial ships. This review is a brief summary of the Panel and a look at some of its implementable works. The utilization of Moderate Flash Rust, Retention Pre-Construction Primer (PCP), and Robust Paperless Paint Documentation continue to provide savings on the deck plate. The deployment of the ZeroG® Arm in will aid in reducing injuries and increase productivity.

Use of Pre-Construction Primers in Marine Construction

Speaker: J. Peter Ault, PCS

Company: Elzly Technology Corporation

Description: Pre-construction primers, also known as shop primers or pre-fabrication primer, are very thin films applied to blast cleaned steel plates and shapes to provide preservation of the blasted steel during the shipbuilding or construction process. SSPC is developing an industry guide document containing information regarding the use of pre-construction primers (PCP) on structural steel in shipbuilding. This presentation will cover the technical details contained in the document including background on the reasons to use and retain PCPs, the types of PCPs and their application and inspection, and the secondary surface preparation processes that are used when PCPs are retained in the final, compatible primary coating system.

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FRIDAY MORNING - FEBRUARY 6

Session 1: Mini Session: Safety

Understanding the Breathing Air System in Abrasive Blasting

Speaker: Thomas Enger, MS, CSP, Chmm
Company: Clemco Industries Corp.

Description: This presentation demystifies OSHA compliance relating to respiratory safety and the breathing air system in abrasive blast operations. The presenter offers a simplified explanation of the components of the respiratory protection and breathing air system for abrasive blast operators and the OSHA regulations pertaining to respiratory protection in General Industry, Construction, and Shipyards. Pertinent equipment certifications by NIOSH for respiratory safety and health as well as ANSI certifications for hardhat and hearing protection are also discussed. This lecture will include information on the complete breathing air system including, types of compressors, air lines, filters, and monitors required assuring safe breathing air for the operator.

Session 2: Mini Session: Dehumidification

Getting to \$0: Strategies for Reducing Climate Control Costs through New Technologies

Speaker: Russ Brown
Company: Polygon US Corporation

Description: Over the past 20 years, climate control services for blast and coat applications have become an accepted practice within the coatings industry. During that time, the equipment and services provided have changed at a lightening pace. These changes have left many contractors and end users unsure of what the best climate control scenarios are how they can be best utilized to provide the cost effective solution for their projects. The presenter will lead an interactive discussion on how the industry has changed over the years, innovations including Green technologies and strategies for deciding on the most cost effective solutions.

Session 3: Mini Session: Food Grade Paints

Enhancing the Effectiveness of Food Grade Paint: Maximizing Safety & Reducing Corrosion

Speaker: Raza Baghpatee
Company: Alwan Paints & Coatings

Description: This presentation describes various predicaments and issues to enhance the effectiveness of environmentally responsible food grade paint, which helps in maximizing safety and reducing the risk of corrosion. The presentation of this report will consider the characteristics of food grade paint as well as enumerate the companies that produce food grade paint. Food grade paint can be categorized into two segments, direct and indirect. While the former is related to direct contact with food products, the latter is applicable to indirect contact with food. The paints that fall in the direct segment contain various types of internal coatings, which have been examined in the report. Moreover, one of the several problems reviewed in this report includes corrosion, which may be hazardous and malignant, to all the stakeholders. The cause and genesis of such predicaments have also been analyzed in this study which also provides a comprehensive mediation and high performance green solution of such problems like, use of the appropriate waterborne protective food grade paint, strict specifications and VOC standards adopted, advances in surface of application, as well as legitimate surface preparation.

Session 4: Mini Session: Soluble Salts

The Effect of Four Commercially Available Steel Decontamination Processes on the Performance of Internal Tank Coatings

Speaker: Michael Melancon

Company: Chevron ETC Coatings SME

Description: Coatings used for corrosion protection of the interior of vessels and tank linings frequently have to perform under severely corrosive environments. One of the major concerns is related to soluble salts impacting coated systems ability to protect steel in several ways including osmotic coating blistering and promotion of under-film metallic corrosion and further coating disbondment. In this presentation, we will focus on soluble salts contamination removal by commercially available decontamination processes in relation to internal tank lining coating systems and we directly compare effectiveness of four cleaning methods on the performance of three coating systems. The presentation explains test panels preparation approach and presents the methodology of surface contamination used for internal coating systems. Four cleaning procedures are described and details of three coating systems application are given. After cleaning, sample evaluation for chloride, sulphate and nitrate ion contamination levels were carried out using Ion Chromatography (IC) method. Additionally, SEM/EDX and elemental surface mapping analyzes were carried out. Pre-treatment characterization of coating systems included Adhesion, Porosity and EIS analysis, while post-treatment characterization followed Standard Atlas Cell testing. Cathodic Disbondment and Soak Test analysis were performed. The results obtained showed that of the four cleaning procedures, Methods 1-3 had similar effect on the performance of all three coating systems indicating that each would be equally applicable. Out of three coating systems, Coating A showed superior performance as evidenced by Standard Atlas Cell test with no visual sign of degradation for all four cleaning methods.

FRIDAY MID-MORNING - FEBRUARY 6

Session 1: Coating Testing for the Marine Industry

Development of an ASTM Standard for Erosion Testing of Protective Coatings Systems

Speaker: David Tordonato, Ph.D., P.E.

Company: US Bureau of Reclamation

Description: Over the past several years, the Bureau of Reclamation's Materials Engineering Research Laboratory has been developing and refining a test method to evaluate a coating's resistance to erosion damage in sediment laden immersion exposure. This test has initially been utilized as a screening/ranking method in selection of new coatings for the aforementioned severe service environments. However, the goal is to develop the procedure into a standard ASTM test method. This paper details the procedure developed by BOR in collaboration with the ASTM standards committee and provides some initial results from several coating types.

Weight loss is measured during extended testing in order to evaluate and compare coating wear over time. It is expected that this standard will be useful in selection of coatings intended for raw water immersion service particularly in situations where there are entrained solid particulates in flowing water.

Evaluating Coatings for Immersion Service via Electrochemical Activity

Speaker: James A. Ellor, P.E.

Company: Elzly Technology Corporation

Description: The industry constantly seeks improved methods to evaluate protective coatings. In immersion service, protective coatings act to reduce electrochemical activity at the metal/coating interface. Tracking this activity via the use of segmented panel testing appears to offer additional insight into coating performance that may aid in coating design and predicting longer-term performance. The data generated also suggest that many currently used observations, such as degrees of surface rusting, are not as significant as historically presumed. This presentation will recommend some additional performance standards for predicting coating performance.



The Problem with Meeting Dry Film Thickness Specifications

Speaker: John Fletcher

Company: Elcometer Limited

Description: Over recent years there have been interesting developments in the way marine coatings and linings are specified that have unwittingly resulted in a situation that can make it impossible to meet a paint specification as currently written.

Firstly, there has always been a problem in meeting a paint specification because of the subjective nature of some of the inspection assessments such as a visual assessment of surface cleanliness, rust and mill scale removal, dust removal, etc.

Secondly, up to 2008, the shipbuilding boom and the strong market for shipping had seen a considerable demand for ships and attractive charter rates had encouraged owners to accept new-build ships as quickly as possible.

Now that market conditions have worsened, owners are more circumspect and have become more cautious about what is and what is not acceptable. As a result standards have tightened.

In addition, the advent of the International Maritime Organization (IMO) Performance Standard for Protective Coatings (IMO PSPC) has seen an increased focus on protective coating for all areas of a vessel but specifically for ballast tanks. In particular, the PSPC introduced the concept of a minimum Dry Film Thickness based on the 90:10 rule.

This presentation will focus on an example of the problems currently being faced in meeting specified Dry Film Thickness (DFT), which is deemed the most understood and most objective element of application. The paper will show that even this most basic aspect of the paint specification is neither well understood nor well specified.

The Erosion Resistance Test of the Abrasion and Cavitation Resistant Coatings

Speaker: Heebaek Lee

Company: Hyundai Heavy Industries Co.

Description: Rudder damage by cavitation erosion has been a serious problem in high speed container ships. It is also well known that the lifetime of a conventional coating system is about 6 months against cavitation bubble collapse. Although STS 316L has been applied to prevent such a problem, there are several drawbacks such as high repair cost, poor workability, and so on. Because of this it is necessary to develop the cavitation resistant coating systems with low cost and good workability. In this study, several types of coatings were evaluated according to ASTM G32 (vibratory apparatus) and ASTM G134 (cavitating liquid jet). Detailed comparisons of two different test methods were performed. The result of this study showed that unsaturated polyester with the glass flake had the best cavitation erosion resistance among the candidates. The vibratory apparatus test method was more suitable to evaluate the erosion resistance of organic coatings because it had better reproducibility and sensitivity as well as uniform surface erosion characteristics by cavity contact compared to the cavitating liquid jet test method.

Session 2: Formulating Coatings

The Futility and Folly of Seeking the Accelerated Corrosion Testing Holy Grail

Speaker: Carl Reed

Company: International Paint LLC

Description: Since the dawn of mankind, or at least since the advent of the very first accelerated corrosion cabinet, it has been the goal of coatings evaluators to develop an accelerated corrosion testing protocol which reflects the real world of corrosion in totality. There have been passionate arguments promoting one or another testing protocol while demonizing others, but that one protocol has yet to be developed to everyone's satisfaction. While the simplistic notion of one accelerated corrosion testing protocol is appealing, it is naive to believe this Holy Grail is actually attainable. Mother Nature, in her divine wisdom, simply will not allow it. In the natural world, there are literally millions of variables that affect the composition and rate of corrosion. Distilling these variables into a few and packaging them into the proverbial accelerated box is not possible. It is therefore incumbent on the industry to back away from such folly and futility and embrace the variations that real world corrosion has to offer by understanding what corrosion is, what is important about corrosion and its measurement, and how to deal with it from a coatings point of view. This presentation will look at the history of accelerated corrosion testing and some popular accelerated corrosion protocols. Also, mechanisms of corrosion and the variables that affect the corrosion process will be discussed, especially as they relate to testing protocols. Finally, the role of coatings in accelerated corrosion testing and the variability encountered in the different test protocols will be examined.

Is the Heat and Pressure of Formulating Coatings for the Oil and Gas Market Getting to You?

Speaker: Andrew Recker

Company: BASF Building Systems

Description: Many protective coatings markets have seen high demand for higher performing coatings or linings. For example, with enhanced oil recovery, many more assets are now used throughout these processes from the oil / water separation tanks to the acid injectors. The temperatures are higher and corrosive environments are more severe. Formulating chemists are working hard at trying to push the extent of the performance of typical resin systems, but it seems that most of the development has been done and the extent of the performance available has been maximized, but before throwing in the towel and going to expensive alloys... maybe something was overlooked.

This presentation will discuss how to formulate for high performance properties, in particular, high temperature immersion applications with epoxy thermoset coatings and the impact of formulation additives on achieving this performance. The data presented will show how the least amount of the formulation can have a significant impact on coating performance. More specifically, it will be shown that with proper dispersant selection, the viscosity of the coating system can be reduced leading to increased filler loadings and ultimately higher performance. Furthermore, data will show how going through a step-by-step formulating process, from resin selection to choosing the right defoamer, can provide for higher performing coatings than typically seen.



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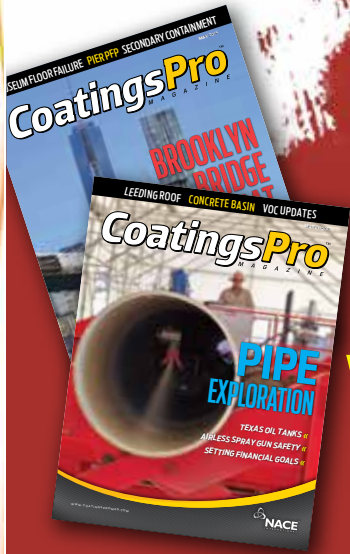
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M A G A Z I N E

Formulating High Performance Coatings with Novel Adhesion Test Methods

Speaker: Yutao Yang, Ph.D.

Company: The Lubrizol Corporation

Description: Adhesion performance is required for every coating system. The adhesion between coatings and substrates is one of the most critical determining factors in the overall success of any coating material. Material design and formulation are key components of high-performance coatings and rely heavily on the accurate measurement and evaluation of adhesion in the coating systems.

In the course of our technology advancement, new adhesion test methods have been developed to enhance the formulations of water-based coatings and paints. In this work, six cases (selected water based coatings/paints on various substrates) were studied with the new methods we have developed. With these studies, we can now understand the adhesion of coating systems from several aspects such as elastic modulus (Young's Modulus) of a coating film on a substrate, wetting, adhesion energy, and so on. The new methods displayed higher resolution and precision for the evaluation of adhesion in some model water-based coating systems, compared to ASTM methods (D4541, D3359). As a result, we now have the ability to accelerate the process of formulating coatings/paints with higher performance.

BPA Epoxide Inorganic/Organic Coatings

Speaker: Mark D. Soucek

Company: University of Akron

Description: A number of corrosion resistant inorganic/organic coatings have been prepared from BPA-epoxides. A direct approach of TEOS or TEOS oligomer modification of BPA epoxide has been performed. Others have first started with alkoxysilane chemistry, which can then be followed by additional TEOS. In these systems, a number of carbon base can be added including carbon nanotubes, carbon rope, and for comparison, carbon black filler. The coating performance, and ultimately, the corrosion performance will be discussed.

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ONLINE TRAINING COURSE

FRIDAY AFTERNOON - FEBRUARY 6

Session 1: Workshop: Fall Protection Training

Fall Protection Training Workshop

Speaker: Charlie Brown

Company: Greenman-Pedersen, Inc.

Description: This workshop will review what owners, contractors and safety personnel need to know in order to comply with the OSHA 1926.500 Fall Protection regulations. The presenter discusses regulations and safe operating procedures for aerial lift/bucket/under bridge access equipment, definitions of fall prevention, fall restraint and fall arrest, the different requirements of fall protection, recognizing hazards regarding fall protection, inspection of fall arrest equipment, anchorage points and training requirements. A discussion on various types of safety equipment for fall protection will complete the workshop.

Session 2: Corrosion Under Insulation

Duct Tape Won't Do: Repair Options for Dealing with Corrosion Under Insulation

Speaker: David A. Hunter, PCS

Company: Neptune Research, Inc. (NRI)

Description: Corrosion under Insulation (CUI) is a topic which has received a lot of press. It is a hot topic with integrity managers because of several reasons, which including the following:

Insulation on piping effectively masks corrosion of piping beneath it, with little indication external of the insulation jacketing of the degree of corrosion in a given area.

In order to inspect for CUI, the least expensive option is remove the insulation, followed by visual and, if needed, ultrasonic inspection or X-ray inspection.

The amount of surface area to be inspected is so great, the facilities cannot afford to inspect all surfaces, and have employed risk based strategies in order to determination the areas where CUI may be most prevalent.

All of the above conspire to yield a level of process risk, which is generally unacceptable, not only from a personnel safety perspective, but lost revenue due to unscheduled outages. Many facilities have begun implementing a CUI inspection program in order to address this risk.

When inspection yields areas which are below tmin, defined as a reduction of pipe wall thickness by 80% or 1 millimeter, whichever is greater, the owner has 3 options:

1. Cut and replace the area in question, which requires system or process shutdown
2. Mechanical Clamps, which are considered temporary repairs, and require customer manufacture for each individual case
3. Composite strengthen the area using a composite coating, which are light weight, conformable to any geometry, and which can used to nearly any length of area to be reinforced. Additionally, composites can be engineering for long term performance 50 years.

Composite Coatings: Basics of Fiber Reinforced Polymers for Pipe Repairs

Speaker: David A. Hunter, PCS

Company: Neptune Research, Inc. (NRI)

Description: Composite coatings are a class of materials that are described as fiber reinforced polymers (FRP) that consist of extremely strong tensile fibers saturated in a binding resin. From the original development as tank bottom materials to handle surface movement, the applications for composite coatings have broadened and moved into the mainstream with industry accepted design codes written around their uses and applications.

What Happens to Zinc Under Hot Insulation?

Speaker: BangYih Chen, PCS

Company: Formosa Petrochemical

Description: The polarity of the zinc-steel galvanic couple in hot aqueous solutions was published more than 20 years ago. It used an inorganic zinc primer coating that was applied under thermal insulation at elevated temperatures [30C-60C (86F-140F)].

Since the year 2000, industrial practices or standards do not recommend using inorganic zinc rich coatings under thermal insulation. Research has showed over the years that good practice of corrosion prevention under insulation is to apply an additional layer of a heat resistant modified epoxy or inorganic polymer coating as an additional barrier.

This presentation will explain why this is the wrong coating system to specify for prevention of corrosion under insulation (CUI).



TRAINING & CERTIFICATION PROGRAMS

REGISTRATION

- Registration for all SSPC Training Courses must be done separately from the SSPC 2015 conference registration.
- To register, e-mail or fax a completed training registration form to Nicole Lourette at: lourette@sspc.org or 412-281-9993. Information on how to register can be found at http://www.sspc.org/How_to_register.
- Deadline date to register is: January 12, 2015.
- All classes will be held at the Westgate Las Vegas Resort, Las Vegas, NV.
- Classes run from 8:00 AM to 5:00 PM except PCI which is 7:30 AM to 6:00 PM and PA 2 and ESTIMATING that run from 8:00 AM to 2:00 PM.

KEY: MBR = Member, NON-MBR = Non-Member

NEW! Selection of Coatings

Training Dates: February 2 | MBR \$395 • NON-MBR \$595

This course covers those skills required to specify and select a coating for a specific structure and environment. The course defines: The primary functions of a coating, the types of substrates that are painted, and the challenges of matching a coating to a service environment to properly protect the structure from corrosion.

NEW! Inspecting Containment

Training Dates: February 7 | MBR \$395 • NON-MBR \$595

Many coating inspectors are often faced with inspecting work at job sites that have containment structures in place during removal of toxic coatings. In these cases it is important for the inspector to understand the type of containment that should be erected and recognize if the containment is operating efficiently. This course covers how to determine what type of containment is necessary from the specification of work and the supplied drawings at the job site. It will discuss the role the inspector plays when inspecting work within these structures.

NEW! Inspection Planning and Documentation (INSPEC PLAN)

Training Dates: February 6-7 | MBR \$595 • NON-MBR \$795

This course trains inspectors to effectively plan inspections and accurately document results. This training will emphasize:

- (1) Carefully reviewing plans and specifications in order to develop a comprehensive inspection plan.
- (2) Using forms to accurately and legibly document project-specific inspection and test results, non-conforming work, and rework.

This course is designed for practicing coating inspectors familiar with commonly-used coating inspection instruments and standards of practice.

The course has value for owners and others who monitor and audit contractor QC inspection reports as part of their QA program on coating projects.

Coating Application Specialist Refresher (CAS REF)

Training Dates: February 2 | MBR \$175 • NON-MBR \$275

The Coating Application Specialist – Refresher is an overview of surface preparation and application covered in the Body of Knowledge of SSPC-ACS 1 NACE No. 13 Applicator Certification Standard No 1 Industrial Coating and Lining Application Specialist Qualification and Certification. This training program covers those topics for Levels 1 in the areas of surface preparation and coating application. Level 1 training is especially designed for entry-level employees new to the coatings industry.

Navigating NAVSEA Standard Item 009-32 (00932)

Training Dates: February 2 | MBR \$395 • NON-MBR \$595

This program will help you better understand the painting requirements outlined for U.S. Navy surface ships, submarines, and aircraft carriers.

Using SSPC-PA 2 Effectively (PA 2)

Training Dates: February 2 | MBR \$195 • NON-MBR \$295

This course explains the key highlights of SSPC-PA 2: Measurement of Dry Coating Thickness with Magnetic Gages. Students learn to verify the accuracy of a DFT magnetic gage; measure the DFT of a coating with Type 1 or Type 2 gage; and describe/implement the procedure to determine if the film thickness in a given area conforms to the maximum and minimum levels specified.

Basics of Estimating Industrial Coatings Projects (EST)

Training Dates: February 3 | MBR \$195 • NON-MBR \$295

This program covers the fundamentals of estimating industrial painting job costs including surface area calculations, labor and production rates, and equipment and material requirements.

Coating Application Specialist (CAS) Level 1

Training Dates: February 3 | MBR \$175 • NON-MBR \$275

This part of the CAS program consists of a one-hour written exam. Basic Level I qualification is intended for entry-level/trainee Application Specialists. Level 1 Application Specialists customarily work with and under the supervision of Level 2 and Level 3 Application Specialists.

Applicator Train the Trainer (ATT)

Training Dates: February 3-4 | MBR \$795 • NON-MBR \$995

The course is designed to train owners, supervisors and other representatives of industrial painting contracting companies to deliver two levels of the SSPC Applicator Training Program. It also provides a standardized curriculum for applicator training that you can present at your shop or job site at your own convenience. This course is only available to Contractors and Facility Owners.

Coating Application Specialist (CAS) Level 2

Training Dates: February 3-4

Written Exam: MBR \$175 • NON-MBR \$275

Hands-On Exam: MBR \$625 • NON-MBR \$725

SSPC Coating Application Specialist (CAS) Certification Program focuses directly on the needs of the Application Specialist and provides criteria for the education, training, experience, knowledge, and motor skills required to prepare and apply protective coatings to steel and concrete surfaces of complex industrial and marine structures. This is an exam only. There is no formal training offered during this program. The SSPC Coating Application Specialist Level 2 Certification Program requires passing a closed-book written exam drawn from the core areas of the SSPC-ACS 1 Standard:

- Environmental, safety, and health
- Surface Preparation
- Coating Application
- Equipment/Troubleshooting

Floor Coating Basics (C10)

Training Dates: February 3-4 | MBR \$595 • NON-MBR \$795

This course is designed to meet the practical training requirements of SSPC-QP 8 Section 4.4, which require that each job crew chief and each QC manager complete a minimum two-day overview of concrete components, coating and surfacing types, and surface preparation and substrate repair techniques based on SSPC consensus standards TU-10, "Procedures for Applying Thick Film Coatings and Surfacing Over Concrete Floors." C10 can be taken in place of the first two days of CCI.

Developing an Effective Coating Specification (DEV CTG SPEC)

Training Dates: February 3-5 | MBR \$595 • NON-MBR \$795

This course is designed to provide facility owners, coating managers, and specification designers with practical guidance and tools to be used in creating competent industrial coating specifications that better ensure contractor conformance with job requirements. It focuses on the technical requirements that designers should consider when preparing specifications for coating work on facilities / infrastructure in general with an emphasis on steel and concrete industrial and marine structures. Various interactive exercises supplement and reinforce the text, giving students practice in analyzing key coating specification areas.

Fundamentals of Protective Coatings (C1)

Training Dates: February 3-7 | MBR \$995 • NON-MBR \$1195

This course provides an overview for those who are new to the protective coatings industry. It is also an ideal refresher for reviewing the fundamentals of corrosion and the use of coatings as a protective mechanism against corrosion and deterioration of industrial structures.

NAVSEA Basic Paint Inspector (NBPI)

Training Dates: February 3-7 | MBR \$1095 • NON-MBR \$1295

The NBPI course was developed by Naval Sea Systems Command (NAVSEA) to train coatings inspectors to inspect critical coated areas as defined by US Navy policy documents. These areas include (but are not limited to): cofferdams, decks for aviation and UNREP, chain lockers, underwater hull, bilges, tanks, voids, well deck overheads and others. What makes this course especially valuable is that it also provides both the technical and practical fundamentals for coating inspection work for many steel structure projects other than ships.

Planning and Specifying Industrial Projects (C2)

Training Dates: February 3-7 | MBR \$995 • NON-MBR \$1195

This course is designed to provide those who understand coating fundamentals with an overview of the principles of planning, awarding, and monitoring the quality of new construction or maintenance painting projects. After completing this training program, students will be familiar with tools to develop effective coating projects and play a more active role in managing painting projects to successful completion.

Bridge Coatings Inspector Program (BCI)

BCI Level 1: February 3-7 | MBR \$995 • Non MBR \$1195

BCI Level 2: February 3-8 | MBR \$1395 • Non MBR \$1595

The BCI course covers the fundamentals of how to inspect surface preparation and application of protective coatings on bridge steel. The course covers unique situations that will affect inspection in the field (e.g. containment, field safety hazards, changing weather conditions), as well as the fundamental inspection skills required to inspect new bridge steel painted in the shop, in the field or maintenance systems applied in the field.

Concrete Coating Inspector Program (CCI)

Concrete Coatings Basics (CCB): February 3-4 | MBR \$595 • NON-MBR \$795

CCI Technical Level: February 3-7 | MBR \$995 • NON-MBR \$1195

CCI Certification Level: February 3-8 | MBR \$1395 • NON-MBR \$1595

The objective of this course is to thoroughly train individuals in the proper methods of inspecting surface preparation and installation of industrial protective coatings on concrete industrial structures and facilities.

Protective Coatings Inspector Program (PCI)

PCI Level 1: February 3-7 | MBR \$995 • NON-MBR \$1195

PCI Level 2: February 3-8 | MBR \$1395 • NON-MBR \$1595

PCI Level 3 Exam: February 9 | MBR \$500 • NON-MBR \$700

The objective of this course is to thoroughly train individuals in the proper methods of inspecting surface preparation and installation of industrial and marine protective coatings and lining systems on an array of industrial structures and facilities. PCI meets the requirements of ASTM D 3276 and the IMO Performance Standard for Protective Coatings and IACS CSR. PCI 1 is the five-day information course and has no prerequisites. PCI 2 includes the certification exam and has prerequisites. PCI 3 candidates must take PCI level 2 first, which includes the certification exam and has prerequisites.

Evaluating Common Coating Contract Clauses (CONTRACT)

Training Dates: February 4 | MBR \$395 • NON-MBR \$595

This course provides a basic overview of those clauses most common to coatings contracts. It follows the outline of a standard construction contract while also teaching students to identify the key provisions that may be missing from contracts they receive.

Lead Paint Removal (C3)

Training Dates: February 4-7 | MBR \$995 • NON-MBR \$1195

C3 includes information on the hazards of lead and other toxic metals, and the current legal and regulatory environment. Topics include protecting workers; compliance with environmental regulations; proper management of waste streams and operations that result in potential exposures to lead; and associated control technology. The course also addresses reading specs and developing programs to control risks to workers, the public, and the environment. It concludes with a discussion of insurance and bonding issues, and an introduction to other safety and health issues.

Project Management for the Industrial Painting Contractor (PRO MGMT)

Training Dates: February 5-6 | MBR \$595 • NON-MBR \$795

This course offers a fundamental introduction to those project management concepts used on industrial painting projects. Those new to or interested in becoming project managers in industrial painting can learn more about:

- Generating new business
- Reviewing contracts
- Navigating employee relations
- Building safety into the job

Economics and other issues that may have legal and financial implications for the project are also covered and "hands-on" exercises in the complex challenges of bid formats, project coordination on the job-site, and risk planning are featured. Project Management for the Industrial Painting Contractor is not a source of legal or financial advice and it doesn't advocate a "set format" for running a business, but it does provide attendees with those basic skills required to run jobs more smoothly and profitably in the future.

Quality Control Supervisor (QCS)

Training Dates: February 5-6 | MBR \$595 • NON-MBR \$795

This course is designed to provide training in quality management for SSPC - Certified contractor personnel, Technical Quality Managers (TQM), and inspectors employed by SSPC-QP 5 inspection firms. It provides an overview of the quality management aspects of surface preparation, paint, coatings, and inspection operations that a Quality Control Supervisor (QCS) needs to know to ensure delivery of a quality product to customers. It is highly recommended that persons attending the QCS course have recent inspection training (SSPC PCI, NBPI or BCI) or equivalent formal training and also have some quality control experience. It is also applicable to project managers, coating specifiers, contracting officers, plant and facility managers, coating inspectors, and technical service representatives in the industrial and marine coatings industry. This course is not intended to replace the more formal quality management courses available from such organizations as the American Society for Quality (ASQ).

Spray Application Basics (C12)

Training Dates: February 5-6 | MBR \$795 • NON-MBR \$995

This program assesses the skills of marine/industrial applicators who have a minimum of 800 hours applying protective coatings with airless spray. Candidates are certified through a brief certification written exam and a practical hands-on skill assessment.

Protective Coatings Inspector Program – Workshop (PCI WS)

Training Dates: February 6 | MBR \$395 • NON-MBR \$595

This workshop trains individuals in the use of proper inspection tools during surface preparation and installation of industrial and marine protective coatings and lining systems. The course has been designed as a supplement to students who have taken the PCI Online program.

Abrasive Blasting Program (C7)

Training Dates: February 7-8 | MBR \$795 • NON-MBR \$995

C7 is designed for contractor personnel who wish to obtain certification or others who wish to learn about dry abrasive blast cleaning of steel. It covers principles of surface preparation, surface cleanliness, surface profile, dust and debris control, and abrasives. Note: A certificate of attendance will be given to those attending the lecture portion and observing the blaster demonstration.

Bridge Maintenance: Conducting Coating Assessments (BRIDGE)

Training Dates: February 7-8 | MBR \$595 • NON-MBR \$795

This course covers the fundamental inspections skills required to conduct a visual coating condition assessment of an in-service steel bridge. It provides a wide range of concerns that can affect the condition of the coating and presents a reporting and rating system that coincides with the AASHTOWare BrM coating rating system, enabling the owner to make an educated decision on how to repair the damaged and deteriorated coating.

CCI Supplement: Determining the Level of Moisture in Concrete (CCI SUPP)

Training Dates: February 8 | MBR \$395 • NON-MBR \$595

This course covers the fundamental inspections skills required to conduct moisture testing of concrete substrates. It will define and explain the steps needed to take when measuring moisture in accordance with the following ASTM Standard Test Methods:

- ASTM D4263 - Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
- ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
- ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes
- ASTM F2420 - Standard Test Method for Determining Relative Humidity on the Surface of Concrete Floor Slabs Using Relative Humidity Probe Measurement and Insulated Hood

Lead Paint Removal Refresher (C5)

Training Dates: February 8 | MBR \$395 • NON-MBR \$595

This one-day course provides refresher training for supervisors/competent persons who are responsible for industrial de-leading operations.

Protective Coatings Specialist (PCS) Program

Training Dates: February 8 | MBR \$500 • NON-MBR \$700

The PCS certification program awards recognition to individuals who have in-depth knowledge in the principles and practices of industrial coatings technology. Certification attests the professional credibility of the coatings practitioner and raises the standards of the profession.

DOD FUNDING

DoD/CPO funding is available for SSPC Training & Certification courses for the following personnel:

- DoD
 - Army
 - Navy
 - Air Force
 - Marine Corps
 - NASA
 - Coast Guard
- Funding is on a first-come, first-served basis.
 - Only the cost of the course and exam are funded under the contract.
 - Other costs, such as labor/travel/per diem, etc., are to be covered by the activity.

Contact Jennifer Merck at 877.281.7772, ext. 2221 or merck@sspc.org to get approval for the DoD Funding.



SSPC is accredited by the International Association of Continuing Education and Training (IACET) as an Authorized Provider. IACET is a non-profit association dedicated to excellence in continuing education and training programs. IACET accreditation is the gold standard in continuing education and the accepted benchmark by which such programs are measured.

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SSPC committees with active projects meet during the annual conference. The following committees may meet in Orlando. The committee schedule will be posted online at www.SSPC2015.com as soon as it becomes available.

ADMINISTRATIVE/ADVISORY COMMITTEES

SSPC Polymeric Floor Coating Advisory Committee

SSPC Bridge Coating Advisory Committee

SSPC Standards Review Committee

Surface Preparation Steering Committee

Coatings Steering Committee

PCCP Advisory Committee

SSPC Education Committee

TECHNICAL COMMITTEE MEETINGS

C.1.1 Zinc Rich Coatings

C.1.14 Thermal Spray/TriSociety Thermal Spray Committee

C.1.3.D Polyurethane Coatings

C.1.4.C Waterborne Acrylic Coatings

C.1.8 Fluoropolymer Coatings

C.2.1 Revision of SSPC-AB 1

C.2.12 Determining Compliance with Soluble Salt Levels

C.2.13 Effect of Soluble Salts on Coatings

C.2.14 Dehumidification

C.2.16 Revision of SSPC-AB 2

C.2.17 Revision of SSPC-SP 1 (Solvent Cleaning)

C.3.5 Revision of SSPC-QP 7

C.5.3.C Environmental Monitoring

C.7.1 Revision of SSPC-TU 10

C.7.4 Revision of SSPC-QP 8

C.8.0 Commercial-Light Industrial Steering

C.8.1 Commercial Cleaning and Painting

C.8.2 Commercial Coating Materials

C.8.3 Commercial Flooring

C.8.4 Commercial Air and Vapor Barrier Coatings

C.8.5 Commercial Contractor Qualification

JOINT TASK GROUPS

SSPC/NACE TG 006 - Dry Abrasive Blast Cleaning

SSPC/NACE TG 350 A, B, C, D Wet Abrasive Blast Cleaning

For more information contact Aimee Beggs at 877.281.7772, ext. 2223 or email: beggs@sspc.org



Watch the SSPC web site later this Fall for the announcement of the President's Lecture Series Award winner for SSPC 2015.

Handpicked by the SSPC President, this technical presentation is chosen based on how it reflects the essence of the paint and coatings industry and profession. Past winning papers offered thought provoking and relevant information important to the growth of the industry.

The presentation is highlighted in the SSPC technical program and the award winner is recognized at the SSPC Annual Business Meeting.

The President's Lecture Series Award winner will be revealed at www.sspc.org and www.sspc2015.com in December 2014.

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Tarps Manufacturing, Inc
TPC/PaintSquare
Tesla NanoCoatings
The Warehouse Rentals & Supply
Tnemec Company
Tractel Inc Griphoist Division
Trask-Decrow Machinery
TruQC LLC

U

U.S. Minerals

V

Van Air Systems
VersaFlex Inc
Vitro Minerals

W

W Abrasives
Wasser Coatings
Western Technology
WIWA LP

EXHIBITOR INFO

For a complete list of rules and regulations, visit www.SSPC2015.com and click on Exhibitor Rules and Regulations.

Application Procedures

To apply for exhibit space, complete the Exhibit Space Contract and return it with a 50% deposit.

1. Exhibit assignments are based on first come, first served basis.
2. Space will not be assigned without a signed contract and the required deposit. No exceptions will be made.
3. Faxes will be accepted with credit card payment only.

Assignment of Booth Space

SSPC will make every effort to accommodate location preferences taking into account separation from competitors and booth configurations. However, space may be limited and ultimately the best available space will be assigned.

Terms of Payment

A deposit in U.S. funds of 50% of total rental fee for the requested space must be submitted with the application. No application will be processed or space assigned until the deposit is received.

Full Payment

Space must be fully paid by October 17, 2014. If assigned space is not paid by October 17, 2014 it may be reassigned or sold by SSPC. Checks must be made payable to SSPC.

Cancellation Penalties

Written requests for cancellations will be honored until November 7, 2014., less a service charge equal to 25% of the total booth(s) fee. After that date, there will be no refunds. The exhibitor is responsible for any balance due on booth space cancelled after November 7, 2014.

EXHIBIT SCHEDULE

Meeting Dates: Tuesday, February 3 – Friday, February 6

Exhibit Dates: Wednesday, February 4 – Friday, February 6

Exhibitor Registration

Tuesday, February 3 8:00 AM – 7:00 PM

Wednesday, February 4 7:00 AM – 5:00 PM

Thursday, February 5 7:00 AM – 5:00 PM

Friday, February 6 7:00 AM – 2:00 PM

Move In

Tuesday, February 3 8:00 AM – 6:00 PM

Wednesday, February 4 7:00 AM – 3:00 PM

Exhibit Hours

Wednesday, February 4 5:00 PM – 8:00 PM

Thursday, February 5 11:00 AM – 4:00 PM

Friday, February 6 10:00 AM – 3:00 PM

Move Out

Friday, February 6 3:00 PM – 7:00 PM

Saturday, February 7 8:00 AM – 4:00 PM

- Registration for all SSPC Training Courses must be done separately from the SSPC 2015 conference registration.
- To register, e-mail or fax a completed training registration form to Nicole Lourette at: training@sspc.org or 412-281-9993.
- **Deadline date to register is: January 12, 2015.**
- All classes will be held at the Westgate Las Vegas Resort, Las Vegas, NV.
- Classes run from 8:00 AM to 5:00 PM except PCI which is 7:30 AM to 6:00 PM and PA 2 and ESTIMATING that run from 8:00 AM to 2:00 PM.



Your SSPC Individual ID Number

Please tell us how you heard about this training

Name (as it should appear on your certificate)

Your Title

Company Name

Company Address

City/State/Zip

Area Code/Phone Number

E-mail Address

Area Code/Fax Number

Date and Place of Birth

Your Approving Manager's Name

Title

- NEW! Selection of Coatings**
Training Dates: February 2 | MBR \$395 • NON-MBR \$595
- NEW! Inspecting Containment**
Training Dates: February 7 | MBR \$395 • NON-MBR \$595
- NEW! Inspection Planning and Documentation (INSPEC PLAN)**
Training Dates: February 7 | MBR \$595 • NON-MBR \$795
- Abrasive Blasting Program (C7)**
Training Dates: February 7-8 | MBR \$795 • NON-MBR \$995
- Applicator Train the Trainer (ATT)**
Training Dates: February 3-4 | MBR \$795 • NON-MBR \$995
- Basics of Estimating Industrial Coatings Projects (EST)**
Training Dates: February 3 | MBR \$195 • NON-MBR \$295
- Bridge Coatings Inspector Program (BCI)**
Training Dates: February 3-8
 - BCI Lvl 1: February 3-7 | MBR \$995 • Non MBR \$1195
 - BCI Lvl 2: February 3-8 | MBR \$1395 • Non MBR \$1595
- Bridge Maintenance: Conducting Coating Assessments (BRIDGE)**
Training Dates: February 7-8 | MBR \$595 • NON-MBR \$795
- Coating Application Specialist Refresher (CAS REF)**
Training Dates: February 2 | MBR \$175 • NON-MBR \$275
- Coating Application Specialist (CAS) Lvl 1**
Training Dates: February 3 | MBR \$175 • NON-MBR \$275

- Coating Application Specialist (CAS) Lvl 2**
Training Dates: February 3-4
 - Written Exam: MBR \$175 • NON-MBR \$275
 - Hands-On Exam: MBR \$625 • NON-MBR \$725
- Concrete Coating Inspector Program (CCI)**
Training Dates: February 3-8
 - CCB: February 3-4 | MBR \$595 • NON-MBR \$795
 - CCI Technical: February 3-7 | MBR \$995 • NON-MBR \$1195
 - CCI Certification: February 3-8 | MBR \$1395 • NON-MBR \$1595
- CCI Supplement: Determining the Level of Moisture in Concrete (CCI SUPP)**
Training Dates: February 8 | MBR \$595 • NON-MBR \$795
- Developing an Effective Coating Specification (DEV CTG SPEC)**
Training Dates: February 3-5 | MBR \$595 • NON-MBR \$795
- Evaluating Common Coating Contract Clauses (CONTRACT)**
Training Dates: February 4 | MBR \$395 • NON-MBR \$595
- Floor Coating Basics (C10)**
Training Dates: February 3-4 | MBR \$595 • NON-MBR \$795
- Fundamentals of Protective Coatings (C1)**
Training Dates: February 3-7 | MBR \$995 • NON-MBR \$1195
- Lead Paint Removal (C3)**
Training Dates: February 4-7 | MBR \$995 • NON-MBR \$1195
- Lead Paint Removal Refresher (C5)**
Training Dates: February 8 | MBR \$395 • NON-MBR \$595

- Navigating NAVSEA Standard Item 009-32 (00932)**
Training Dates: February 2 | MBR \$395 • NON-MBR \$595
- NAVSEA Basic Paint Inspector (NBPI)**
Training Dates: February 3-7 | MBR \$1095 • NON-MBR \$1295
- Planning and Specifying Industrial Projects (C2)**
Training Dates: February 3-7 | MBR \$995 • NON-MBR \$1195
- Project Management for the Industrial Painting Contractor (PRO MGMT)**
Training Dates: February 5-6 | MBR \$595 • NON-MBR \$795
- Protective Coatings Specialist (PCS) Program**
Training Dates: February 8 | MBR \$500 • NON-MBR \$700
- Protective Coatings Inspector Program (PCI)**
Training Dates: February 3-9
 - PCI Lvl 1: February 3-7 | MBR \$995 • NON-MBR \$1195
 - PCI Lvl 2: February 3-8 | MBR \$1395 • NON-MBR \$1595
 - PCI Lvl 3 Exam: February 9 | MBR \$500 • NON-MBR \$700
- Protective Coatings Inspector Program – Workshop (PCI WS)**
Training Dates: February 6 | MBR \$395 • NON-MBR \$595
- Quality Control Supervisor (QCS)**
Training Dates: February 5-6 | MBR \$595 • NON-MBR \$795
- Spray Application Basics (C12)**
Training Dates: February 5-6 | MBR \$795 • NON-MBR \$995
- Using SSPC-PA 2 Effectively (PA 2)**
Training Dates: February 2 | MBR \$195 • NON-MBR \$295

PAYMENT OPTIONS

Please charge my credit card in the amount of \$ _____

- VISA MasterCard Discover AMEX

Card Number Exp. Date Security Code

Signature

Check Enclosed Check No. _____

Add \$95.00 for 1-Year SSPC Individual Membership

Special Note: If you have a disability that may impact your participation in this activity, please call SSPC at least two weeks prior to the date of the event. Prior notification is necessary in order for us to address your needs.

A Free Membership Offer from SSPC

If you register for a training course at the nonmember rate, you automatically become an SSPC individual member. Your membership includes unlimited access to the entire collection of SSPC standards at no additional cost, a subscription to the Journal of Protective Coatings and Linings as well as discounts on publications, conferences and other benefits. After the course, we will process your application and you will receive your membership card and the JPCL shortly thereafter. Please note: by itself, individual membership is \$95 per year. This offer is valid only for new members or those whose membership has been inactive for at least six months. Your signature below verifies that you understand this offer.

Signature

Date

Cancellation Policy: SSPC reserves the right to cancel up to 21 days before the scheduled training is to begin due to low registration. If a training event is cancelled, registrants receive a full refund of payments for course fees and supplemental material or SSPC can transfer your registration fee to an upcoming training. If you do not enroll in another class within one year, the fees will be forfeited. SSPC reserves the right to cancel or reschedule a course or part thereof at any time. In the event of SSPC having to cancel or re-schedule a course, attendees will be offered an alternative course date or the option to withdraw from the course and a credit/refund issued if appropriate. We cannot take responsibility for the expenses incurred by the customer as a result of the cancellation or re-scheduling of the course. If you choose to cancel and SSPC receives your written cancellation: A) up to 30 days before the training, the registration fee is refundable, minus a \$50.00 service charge or you may select a full credit towards a future training class or event. B) is received from 29 to 17 calendar days before the training, the fee is refundable at 50%, minus a \$50.00 service charge or you may select a full credit towards a future conference or training event. C) is received in 16 or fewer days before the training, you will receive credit towards a future conference or training event, minus a \$50.00 service charge. If you do not cancel or attend, you are still responsible for the payment. All credits for future classes due to your cancellation are forfeited if you do not attend another class within one year of your first cancellation. Under no circumstances is SSPC responsible for reimbursement of any airline tickets, guaranteed reservations or other expenses associated with a student attending any class. If you contact SSPC 21 days before the start date of the original class you wanted and request to move from that class date to another class date, there is a \$50.00 fee. If you replace a student in a class, there is a \$50.00 fee.

4 EASY WAYS TO REGISTER:

- 1** Online at www.sspc.org
- 2** By phone, toll-free: 877.281.7772 x2204
- 3** Fax this form to: 412.281.9993
- 4** By mail send to: SSPC Training • P.O. Box 53630 Pittsburgh, PA 15253-5902



FEBRUARY 3-6, 2015
 WESTGATE LAS VEGAS RESORT, LAS VEGAS, NV
 www.sspc2015.com

Conference Registration Form

SSPC Member # _____

I am not a member

-- OFFICE USE ONLY --

Speaker (1MS/1NS)
 BOG
 Facility Owner (1CFO)

First Name/MI: _____ Last Name: _____

Nickname (for your badge): _____

Title: _____ Department/Division: _____

Company Name: _____

Address: _____

City: _____ State/Prov: _____ Zip/Postal: _____ Country: _____

Phone Number: _____ Fax Number: _____

E-mail Address: _____ Web Site Address: _____

Emergency Contact: _____ Phone: _____

A. SELECT YOUR CONFERENCE PACKAGE

*Please Check Box(es) for Registration Below

	Early Bird before 11/17/14	Pre-Show 11/17/14 to 12/15/14	Onsite after 12/15/14
<input type="checkbox"/> Member Full Conference (1MF)	\$500	\$600	\$700
<input type="checkbox"/> Member Additional Employee (1MA)	\$400	\$500	\$600
<input type="checkbox"/> Non-Member Full Conference (1NF)	\$700	\$800	\$900
<input type="checkbox"/> Non-Member Additional Employee (1NA)	\$600	\$700	\$800
<input type="checkbox"/> Member One Day Registration (30M) Choose Day: <input type="radio"/> Tue <input type="radio"/> Wed <input type="radio"/> Thu <input type="radio"/> Fri	\$200	\$300	\$350
<input type="checkbox"/> Non-Member One Day Registration (30N) Choose Day: <input type="radio"/> Tue <input type="radio"/> Wed <input type="radio"/> Thu <input type="radio"/> Fri	\$300	\$400	\$450
<input type="checkbox"/> Three-day Exhibit Hall Only (5TN)	\$150	\$150	\$150
<input type="checkbox"/> Single Day Exhibit Hall Only (7EO) Choose Day: <input type="radio"/> Wed <input type="radio"/> Thu <input type="radio"/> Fri	\$60	\$60	\$60
<input type="checkbox"/> Guest/Spouse Registration (9SP)	\$200	\$250	\$300

B. SPECIAL EVENTS/OPTIONAL TOURS

	Early Bird before 11/17/14	Pre-Show 11/17/14 to 12/15/14	Onsite after 12/15/14
<input type="checkbox"/> Awards Lunch (Tues 2/3)* (AWA)	\$35	\$50	\$75
<input type="checkbox"/> Welcome Reception Tickets (Tues 2/3)* (REC)	\$35	\$50	\$75
<input type="checkbox"/> The After Party (Wed 2/4)* (AP1)	\$35	\$50	\$75
<input type="checkbox"/> Closing Party Tickets (Fri 2/6)* (BAN)	\$35	\$50	\$75
<input type="checkbox"/> Lake Mead Lunch Cruise (Wed 2/4) (SE1)	\$155	\$165	\$175
<input type="checkbox"/> Eldorado Canyon Tour (Thur 2/5) (SE2)	\$135	\$145	\$155

Events marked with an asterisk () are included with full conference registration. If you do not register for a full conference, you must purchase additional tickets to attend.

C. SSPC MEMBERSHIP

<input type="checkbox"/> 1-year Individual Membership SAVE MONEY! Register at Member Rates!	\$95		
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D. TRAINING DISCOUNT

Less \$100 Discount for Training Course registrants ONLY

*MUST purchase full conference registration + training to qualify.

To calculate your amount due, add the amounts in boxes A, B and C, then subtract any discount from Box D, and enter the amount in the "Total Cost" box. This is your total registration cost.

REGISTRATION SUBTOTAL
\$ _____ BOX A

SPECIAL EVENTS SUBTOTAL
\$ _____ BOX B

MEMBERSHIP SUBTOTAL
\$ _____ BOX C

TRAINING DISCOUNT
\$ _____ BOX D

TOTAL COST = A+B+C-D
\$ _____ TOTAL

DEMOGRAPHICS

What type of company do you work for?

- 1. Architect, Consultant, Engineer
- 2. Commercial Contractor
- 3. Fabricator
- 4. Facility Owner/End User
- 5. Industrial Contractor
- 6. Manufacturer
- 7. Residential Contractor
- 8. Supplier
- 9. Other _____

What is your gender ?

- Male Female

ADA

If you require assistance under the Americans with Disabilities Act, please contact Kate Jurik at jurik@sspc.org or 412.281.2331 x2211.

CONFIRMATION OF REGISTRATION

You will receive an email confirmation once your registration has been paid (please white-list so the email does not go to your junk file). In early January 2015, a bar code will be emailed to you for you to use to print out your badges and tickets onsite at the SSPC 2015 Registration Desk.

NOTE: By registering for SSPC 2015 you are consenting to receive written and verbal communication from SSPC via postal mail, courier, telephone, fax, and e-mail. You may opt-out by checking the box below.

Please do not include me in SSPC 2015 communications

When registering for SSPC 2015 you are authorizing the use of any photographs taken onsite for future promotions.

SSPC 2015 CANCELLATION POLICY:

All cancellations must be received in writing by November 24, 2014 to qualify for a 100% refund less a \$50 administrative fee. Cancellation requests received after November 24, 2014 and by January 20, 2015 will receive a 50% refund. No refunds will be given after January 20, 2015 or for No-Shows. SSPC is not responsible for any personal charges associated with your attendance at SSPC 2015 (i.e., air fare, hotel, meals, transportation, etc).

Registration Options

Register Online
www.SSPC2015.com
Email
sspc@prereg.net

OR

Mail this form to:
 SSPC 2015 c/o QMS Services Inc.
 6840 Meadowridge Ct.
 Alpharetta, GA 30005

E. PAYMENT (US FUNDS ONLY)

Select a payment option: American Express Visa MasterCard Discover

Card Number _____

Exp. Date ____ / ____ Security Code _____

Signature (Required) _____

Print Name on credit card _____

Check enclosed (Payable to "SSPC 2015")

**Important: Full Payment Is Required At This Time.
 No registration will be processed until payment is received.**



40 24th Street, 6th Floor

Pittsburgh, PA 15222-4656

P: 877.281.7772 • F: 412.281.9992

www.sspc.org

SSPC 2015
featuring **GR^{een}COAT**



FEBRUARY 3-6, 2015
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