



SCOTTSDALE MARRIOTT AT MCDOWELL MOUNTAINS + SCOTTSDALE, AZ



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Sunday, February 26

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# **KNOWLEDGE & NETWORKING**

# THE LARGEST GATHERING OF PVC PIPE & FITTING MANUFACTURERS IN THE WORLD

Each year Uni-Bell PVC Pipe Association members come together for the Annual Meeting - the largest gathering of PVC pipe and fitting manufacturers in the world. Our guest speakers cover topics ranging from market assessments for PVC pipe, vinyl resin and related chemicals, to sustainability, technology, legislative affairs and product certification. The participants come from around the world, and their ranks include pipe and fitting manufacturers, resin and additive providers, equipment manufacturers, affiliated associations and non-profit certification agencies.

## **PRESENTATION TOPICS**

- ▶ The latest on PVC resin and pipe markets in North America;
- Expanding markets for PVC pipe;
- Doptimizing water distribution networks by minimizing real system losses;
- A look at the American Society of Civil Engineers;
- ▶ Rational design procedures for de-rating a PVC pipe's pressure class;
- ▶ Responding to stakeholder concerns regarding misinformation;
- ▶ Design and installation considerations for PVC pipe used in irrigation;
- ▶ Appropriate PVC pipe wall thickness to accommodate maximum operating pressure and repeated surge pressures;
- Addressing clean water availability;
- Upgrading America's water infrastructure and correcting environmental injustices;
- The transformative power of citizen media;
- An overview of the National Association of Sewer Service Companies and its pipeline assessment certification program;
- And much more

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# **UNI-BELL'S MAJOR GOALS**

## MARKET SUPPORT

Identify, analyze and capitalize on opportunities to preserve and expand markets for PVC pipe.

## ISSUES MANAGEMENT

Monitor and influence public issues that affect Association members.

## TECHNICAL SUPPORT

Collect, interpret and disseminate technical information on industry products and their applications.

## **EDUCATION**

Enhance knowledge and awareness of groups and individuals responsible for the promotion and use of PVC pipe.

## STANDARDS AND SPECIFICATIONS

Promote and assist in the development of standards, specifications and practices that encourage proper use of PVC pipe.

## ORGANIZATIONAL RELATIONSHIPS

Maintain cooperative relationships and activities with allied organizations in pursuit of Uni-Bell's mission.

## **INDUSTRY STATISTICS**

Lawfully gather, consolidate and disseminate industry sales, marketing and production data.

## NETWORKING AND FORUMS

Encourage member interaction and understanding of issues and trends affecting the industry.

## ORGANIZATIONAL COMPETENCY

Maintain an organizational structure that reflects the highest levels of volunteer and professional staff competency.

# **WELCOME**

# IMPROVING WATER QUALITY, DURABILITY AND SAFETY IN POST-FLINT AMERICA WITH PVC PIPE

On behalf of Uni-Bell's Board of Directors, we extend a heartfelt welcome to all participants in our 45th Annual Meeting!

Reports that Flint, Michigan's water system was dangerously contaminated by lead has brought into sharp focus the need for better materials and practices in the management of America's water systems. The problems afflicting Flint's underground water infrastructure also threaten cities throughout the U.S. To keep a tragedy like the one in Flint from happening elsewhere, it is important to understand what really happened there and to appreciate what cash-strapped municipalities can do to keep their constituents from suffering a similar fate. Flint's water system was a disaster waiting to happen. Lack of open competition for pipe used in Flint's water system blocked innovation and the continued use of corrosion-prone piping were key factors in the disaster.

Iron piping is not only failing due to corrosion but it's increasingly associated with public health and safety issues. Recent studies show that the cement mortar lining used in ductile iron pipe is a potential source of water contamination and that there is an association between iron corrosion and increased levels of lead in water. Professor Marc Edwards, of Virginia Tech's Environmental and Water Resources Research Program, attributes Flint's disaster to "out of control corrosion of its water distribution system" and describes corrosion control as "the most expensive environmental engineering problem in the country." There is also growing concern about high levels of iron and manganese in water carried by iron pipe. A test sample recently taken in St. Joseph, Louisiana found more than 230 times EPA's recommended level for iron in drinking water.

Corroded underground iron pipes are a breeding ground for human pathogens. Iron corrosion consumes chlorine, making it more likely that harmful bacteria will grow in the water. This contributed to the E.coli outbreak in Walkerton, Ontario which killed seven people and made thousands sick. It may also have played a role in the recent outbreak of Legionnaires' disease in Flint. Officials in St. Bernard Parish, Louisiana targeted 31 iron pipe segments for replacement in an effort to rid the local water system of a deadly brain-eating amoeba. As well, anti-corrosion chemicals used in iron piping systems can create their own environmental and health hazards. Utility operators typically add orthophosphates, a corrosion-control agent, to chlorinated water. Phosphate-laden drinking water can lead to excessive phosphorous discharge at wastewater treatment plants and increase phosphorous runoff into nearby lakes and streams. Elevated levels of phosphorous contribute to excessive growth of algae. Blue-green algal blooms can produce a wide array of neurotoxins, liver toxins and skin irritants.

Water systems are capital-intensive operations, where every dollar spent on plugging leaks and fighting a losing war against corrosion is a dollar not invested in upgrading life-sustaining water networks. One way municipalities can lessen the financial burdens facing them is to remove the barriers many of them, including Flint, have that keep safe, cost effective, lead-free and corrosion-proof technologies like PVC piping from participating in bidding processes for pipe replacement. The U.S. Conference of Mayors published a report in 2013 warning about the higher costs utilities will pay due to a lack of free and open competition for piping used in underground infrastructure projects.

Competitive bidding is the answer. Flint and other communities saddled with costly, risky iron piping systems need look no further than right next door to Burton, and to tens of thousands of other communities across North America that use PVC pipe. Like Flint and many other communities, Burton was saddled with procurement specifications which excluded any alternative solution or technology from bidding. Burton Mayor Paula Zelenko petitioned and fought Genesee County for her city to be allowed to include other pipe materials in their bidding process. Upon completion in 2019, Burton will have replaced 19 miles of corroded iron pipe with PVC at a cost \$2.2 million lower than the nearest bidder. By following Burton's example, Flint and other cities across America can take a giant step toward providing residents with safe drinking water, and at an affordable rate made possible by open competition and sustainable piping materials.

Join us as we discuss the issues facing municipal water and sewer utilities in post-Flint America and PVC pipe's growing recognition as the material of choice for sustainable, safe and durable underground water infrastructure.

With best regards,

John Britton
VICE CHAIR &
ACTING CHAIR

Bruce Hollands
EXECUTIVE
DIRECTOR



- ▶ Expanding demand for PVC pipe products
- ▶ Consolidating PVC pipe industry efforts to promote its products
- ▶ Informing public opinion on PVC pipe use

# **CONFERENCE GUIDELINES**

## ANTITRUST GUIDELINES

Antitrust laws prohibit agreements or understandings between two or more individuals or businesses to regulate prices or quantities of goods or services, to allocate customers or territories, to hinder or limit a competitor or potential competitor's operations, or otherwise unreasonably restrain business activity. Discriminatory pricing or servicing is also prohibited, as well as monopolization or attempts to monopolize.

Violation of antitrust laws is a felony and convicted individuals can be and have been imprisoned for up to three years. Corporations are subject to heavy fines. Violation of antitrust laws can also lead to civil actions which can result in treble damages and attorneys' fees. Every individual should, therefore, follow these rules:

- ▶ DO NOT discuss your prices or competitors' prices with a competitor (except when buying from or selling to that competitor) or anything which might affect prices such as costs, discounts, terms of sale or profit margins.
- ▶ **DO NOT** agree with competitors to uniform terms of sale, warranties or contract provisions.
- ▶ **DO NOT** agree with competitors to divide customers or territories.
- ▶ **DO NOT** act jointly with one or more competitors to put another competitor at a disadvantage.
- ▶ **DO NOT** try to prevent your supplier from selling to your competitor.
- ▶ **DO NOT** discuss your future pricing, marketing or policy plans with competitors.
- ▶ DO NOT discuss your customers with your competitors.

### WITH RESPECT TO ASSOCIATION ACTIVITIES

- ▶ **DO NOT** make statements regarding prices or matters affecting prices at Association meetings.
- ▶ DO NOT make statements about your future plans regarding pricing, expansion or other policies with competitive overtones. Do not participate in discussion where other members do.
- ▶ **DO NOT** propose or agree to any standardization which will injure your competitor.
- ▶ **DO NOT** assume you are protected by informal advice from a government official.
- ▶ **DO** consult with the Association's legal counsel before speaking for the Association.
- ▶ DO alert Association staff and legal counsel to anything inaccurate or improper. This includes a position the Association has taken or intends to take or a meeting or activity of which you have learned.
- ▶ DO consult your own legal counsel or the Association's legal counsel before raising any matter which you feel might be sensitive.
- ▶ **DO** send copies to an Association staff member of any communications or documents sent, received or developed by you when acting for the Association.
- ▶ DO alert every employee in your company who deals with the Association of these guidelines.
- ▶ DO leave any meeting where any of the foregoing topics are being discussed – and state why you are leaving.
- ▶ DO be conservative. If you feel an activity might be improper, do not do it.



# FEATURE PRESENTATION GUEST SPEAKER

## **JAMES O'KEEFE III**

FOUNDER AND PRESIDENT OF PROJECT VERITAS

# THE TRANSFORMATIVE POWER OF CITIZEN MEDIA IN THE 2016 PRESIDENTIAL ELECTION

James O'Keefe III's groundbreaking investigations have exposed corruption and malfeasance in major taxpayer-funded institutions, including ACORN, Planned Parenthood, NPR, Medicaid, and more. In 2013, O'Keefe authored *The New York Times* bestselling book, *Breakthrough: Our Guerilla War to Expose Fraud and Save Democracy*, which tells the true story of subverting a corrupt and complacent media establishment, surviving gratuitous legal challenges, and restoring truth to journalism by successfully pioneering a new form of guerilla reporting. O'Keefe is a graduate of Rutgers University and received the Robert Novak Award for Journalistic Excellence in 2011. He has been named "Fox News Power Player of the Week" twice by Chris Wallace, and placed on the *Forbes 30 Under 30* for media moguls. A congressional resolution was introduced in 2009 with 31 co-sponsors praising him for his work.





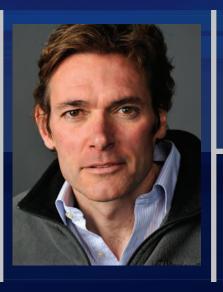
# FEATURE PRESENTATION KEYNOTE SPEAKER

RONALD W. BRECHER, PH.D., DABT, C. CHEM.
TOXICOLOGY AND RISK COMMUNICATION EXPERT

## TOP 10 TIPS: COMMUNICATING ABOUT VINYL SAFETY

Ronald W. Brecher, Ph.D., DABT, C.Chem., has been a toxicology consultant since 1987 specializing in risk assessment and risk communication related to human exposures to chemicals. Ron provides advice to health departments and related agencies for all levels of government in Canada as well as to private sector clients throughout North America. He speaks effectively to both technical and non-technical audiences and has often acted as a facilitator, where he has led multi-stakeholder groups in evaluating scientific information to support regulatory decision making. Dr. Brecher has provided training in toxicology, risk assessment, risk communication and children's environmental health since 2000 and is an Adjunct Professor and Associate Graduate Faculty member at the University of Guelph. Ron also helps companies address misinformation about their products. For PVC, this can contribute to poor perceptions about its safety and environmental qualities and negatively influence purchasing decisions. Join Dr. Brecher as he provides practical tips on how to engage customers, respond to negative perceptions and promote the sharing of accurate information about PVC pipe.

Sponsored by Saul Ewing



# FEATURE PRESENTATION SPECIAL GUEST SPEAKER

**DR. MARC EDWARDS**CHARLES LUNSFORD PROFESSOR
OF CIVIL ENGINEERING, VIRGINIA TECH

# UPGRADING AMERICA'S WATER INFRASTRUCTURE AND CORRECTING ENVIRONMENTAL INJUSTICE

Dr. Marc Edwards is Charles Lunsford Professor of Civil Engineering at Virginia Tech, where he teaches environmental engineering, applied aquatic chemistry and engineering ethics. His research group pursues science as a public good through laboratory work on important but underfunded topics like corrosion in buildings and opportunistic premise-plumbing pathogens - providing the groundwork for the investigative science which helped uncover the 2001-2004 Washington, D.C. Lead Crisis and the 2014-2016 Flint Water Disaster. Time magazine dubbed Dr. Edwards "The Plumbing Professor" in 2004 and listed him amongst the four most important "Innovators" in water in the world. He was awarded a Presidential Faculty Fellowship by the White House in 1996. His paper on lead poisoning of children in Washington D.C., due to elevated lead in drinking water, was judged the outstanding science paper in Environmental Science & Technology in 2010. In 2013 Edwards received the Institute of Electrical and Electronics Engineers (IEEE) Barus Award for Outstanding Service in the Public Interest and in 2016 he was named amongst the most influential people in the world by Fortune, Time, Politico and Foreign Policy magazines.



# **SPEAKER BIOGRAPHIES**

RICHARD F. ANDERSON, PH.D. has been Senior Advisor to the U.S. Conference of Mayors Water Council since 1999. His responsibilities include policy analysis and research; quarterly meetings for mayors on public water; and monitoring of local government investment in public water/wastewater infrastructure and services. He has recently completed reports on: trends in municipal spending on water and wastewater; an analysis of the cost per household for water, sewer and flood control in a survey of central California cities; a study quantifying the decelerating rate of growth in local investment in water and sewer, 2000-2012; and public water sector employment and payroll, 2000-2014. Previously, Dr. Anderson was Director of Government Affairs at Wheelabrator Technologies Inc., an energy, solid waste and water services company. He served as Co-Chair of the EPA's Federal Advisory Committee on the Industrial Combustion Coordinated Rulemaking in 1996-97 and was Assistant Professor at Boston University's Program in Urban Affairs and Planning where he taught environmental planning, urban economics, statistics, environmental health and data analysis.

**CRISTIAN BARCAN** is Vice President, Sustainability and Industry Affairs at The Vinyl Institute (VI) where he is responsible for the VI's overall campaign to advance the vinyl industry's sustainability commitment and outreach to key influencers. Mr. Barcan has two decades of experience in the chemical industry developing sustainability related business models for a wide range of products. He served as VP of Business Development at UL's Information and Insights Division and spent 18 years at BASF in various business and sustainability leadership positions.

**RON BISHOP** is Vice President of Engineering and Technical Services at Diamond Plastics Corporation. Mr. Bishop holds a graduate degree in mechanical engineering and has been involved in the manufacture of PVC pipe for over 45 years. He is a registered professional engineer, a member of the Plastic Pipe Institute's Hydrostatic Design Stress Board, ASTM F17, AWWA's PVC Pipe Committee and ASCE's Pipeline Assessment and Sustainable Pipeline Design Committees. He previously served as Chairman of Uni-Bell PVC Pipe Association.

**CHUCK CARR** is Global Business Director, Chlor-Alkali/Vinyls at IHS Chemical. Mr. Carr joined IHS Chemical in 2006 as Director of Propylene Studies in the Olefins Group and was most recently Sr. Director, Global Olefins. Chuck spent 21 years at Total Petrochemicals USA working in refinery engineering/operations, purchasing, plastics logistics and olefins commercial activities.

**DICK DOYLE** is President and CEO at The Vinyl Institute. He spent 17 years at the American Chemistry Council and has extensive experience in association management, public affairs and in driving performance improvement throughout the U.S. manufacturing industry.

**DR. STEVEN FOLKMAN** is Director of Utah State University's Buried Structures Laboratory. He is a registered Structural Engineer and a member of AWWA, ASTM's F17 Plastic Piping Systems Committee as well as the Transportation Research Board Committee on Subsurface Soil-Structure Interaction. Dr. Folkman is a co-author of the widely used text, *Buried Pipe Design*.

ANGELIQUE MALDONADO is Water Use Compliance Supervisor at Albuquerque Bernalillo County Water Utility Authority (ABCWUA), where she has worked for 12 years. Ms. Maldonado oversees wastewater enforcement and leak detection, provides program management and evaluation through advanced analytical services that examine the policy context, planning and design, implementation, operation outcomes, and program costs in water resources planning and engineering – creating business intelligence out of water and wastewater operational data for ongoing decision support. Angelique is a State Certified Water and Wastewater Operator Level 4 with the New Mexico Environment Department and has been conducting AWWA water audits for ABCWUA since 2009.

ANDRÉ NIJLAND is Area Sales Manager, Technology Licensing for Asia-Pacific and North America with WAVIN, a European company which delivers systems for drinking water supply, wastewater discharge and storm water management and licenses its technologies to partners around the globe.

LYNN OSBORN is Technical Director for the National Association of Sewer Service Companies (NASSCO) and Owner of LEO Consulting, LLC. Mr. Osborn has over 40 years of experience in the water and sewer industry, including nine years as a project manager for a civil engineering consulting firm, as well as 31 years in engineering with a large technology provider and contractor principally in the business of pipeline trenchless technology. Lynn holds bachelor's and master's degrees in civil engineering and is a registered professional engineer in Kansas and Missouri.

**ED PHILLIPS** is Head Water Master, A&B Irrigation District in Rupert, Idaho and has worked for the District for 35 years, overseeing all field operations, maintenance and personal activities along with water deliveries for over 80,000 acres. Mr. Phillips assisted the District as Project Manager for its \$12 million dollar pumping plant and pipeline construction project.

DR. ROBERT (BOB) D. STEVENS is Past President of the American Society of Civil Engineers (ASCE). He has been an active member of ASCE for 50 years, serving on its Board of Directors for six years, and volunteered for the United Engineering Foundation and Engineers without Borders-USA. Throughout his career Dr. Stevens worked in the transportation and water/wastewater sectors where he managed environmental assessments, planning, design, and construction management projects. Bob led one of the first small diameter PVC pipe sewer projects in Zanesville, Ohio in 1986 that included both gravity and pressure PVC pipelines. In 1974, he managed the first design/build transit project in North America. He retired from ARCADIS U.S., Inc. in 2007 but continues to work there on a part-time basis as Executive VP doing special assignments out of the Fort Worth, TX office. He has taught classes at The University of Akron, Ohio, The University of Michigan and Cleveland State University.

# MAP & PROGRAM AT A GLANCE



\*Breakfast available for delegates at Alicante Patio daily and is included with registration.

#### SUNDAY 2/26/17

#### 5:30 PM - 6:30 PM

@Palm Court

Pre-Meeting Reception





#### MONDAY 2/27/17

8:00 AM - 12:00 PM

@Valencia II-VII-I

General Meeting Session

9:00 AM - 11:00 AM

@Bella Vista (2nd Level)

Spousal Orientation

#### 12:00 PM - 12:30 PM

@Valencia II-VII-I

Meeting of the Associate,

International & Certification/Testing Member Committee

#### 5:00 PM - 7:00 PM

@Splash Patio

Welcome and Networking Reception









#### TUESDAY 2/28/17

8:15 AM - 12:00 PM

@Valencia II-VII-I

General Meeting Session

#### 12:15 PM - 6:00 PM

@Porte Cochere

Uni-Bell Golf Tournament at Grayhawk Golf Course

## **WEDNESDAY 3/1/17**

#### 8:30 AM - 12:00 PM

@Valencia II-VII-I

General Meeting Session

#### 12:15 PM - 4:00 PM

@Bella Vista (2nd Level)

Board of Directors' Meeting & Luncheon

### 5:00 PM - 7:00 PM

@Palm Court

Closing/Wrap-Up Reception

Sponsored by



Note: Attire is business casual/slacks unless specified otherwise. Badges must be worn at all social events and presentations. Breakfast available for delegates at Alicante Patio daily and is included with registration.

# FEBRUARY 26 & 27 **SCHEDULE OF EVENTS**

#### **SUNDAY, FEBRUARY 26**

5:30 PM - 6:30 PM

@ Palm Court

**Pre-Meeting Reception** Sponsored by





#### **MONDAY. FEBRUARY 27**

7:00 AM - 8:00 AM

@ Alicante Patio

**Breakfast** 

8:00 AM - 8:30 AM

@ Valencia II-VII-I

Joint Meeting of Pipe & Resin Producers, Associate, International & Certification/Testing Members

Brad Corbett, Jr., Board Member, S & B Technical Products, Inc. Introduction of attendees new members and discussion of international travel

8:30 AM - 9:00 AM

@ Valencia II-VII-I

### Conservation Program Success in Real Loss Reduction by Distribution System Optimization in Albuquerque, NM

Angelique Maldonado, Water Use Compliance Supervisor, Albuquerque Bernalillo County Water Utility Authority (ABCWUA) A look at ABCWUA's implementation of a robust conservation program in the mid 1990s, which included incentive rebates, wastewater enforcement, leak detection, education and leak modelling. The program leveraged data from water audits, infrastructure failures and work orders to guide its pipe replacement and capital improvement programs. The program succeeded in prioritizing field work by being pro-active and reduced response times to pipe failures, and ultimately optimized the distribution network by minimizing real system losses. The performance of different

9:00 AM - 9:30 AM

@ Valencia II-VII-I

### Expanding Markets for PVC Pipe

Dick Doyle, President and CEO, The Vinyl Institute (VI)

pipe materials in reducing water loss due to leakage is provided.

Find out how VI and PVCPA are working together to drive the expansion of PVC pipe. Three major subthemes will be addressed in this presentation: 1) targeting market growth opportunities through research; 2) vinyl sustainability; and 3) challenging the misperceptions about vinyl.

#### **MONDAY, FEBRUARY 27 CONTINUED**

9:30 AM - 10:15 AM

@ Valencia II-VII-I

PVC: Key Drivers and Trends, Feedstock's Outlook

& Worldwide Economic Factors

Chuck Carr, Global Business Director, Chlor-Alkali/Vinyls,

Chemical Market Services, IHS Chemical

A look at capacity and demand in the global thermoplastics marketplace.

10:15 AM - 10:30 AM

@ Valencia II-VII-I

Break

#### 10:30 AM - 11:00 AM

@ Valencia II-VII-I

### Update from the European Plastic Pipe Market

André Nijland, Area Manager Technology Licensing,

Asia-Pacific and North America, Wavin Technology & Innovation Status and outlook on PVC pipe in Europe, an update from the European Plastic Pipes and Fittings Association (TEPPFA) and new developments in PVC.

#### 11:00 AM - 12:00 PM

@ Valencia II-VII-I

### The Transformative Power of Citizen Media in the 2016 Presidential Election

Guest Speaker: James O'Keefe III, Founder and President of Project Veritas Project Veritas investigates and exposes corruption, dishonesty, self-dealing, waste, fraud and other misconduct in public and private institutions in order to achieve a more ethical and transparent society. It played an important role in the 2016 Presidential election by releasing a number of videos exposing corruption in the Democratic Party directly to voters through social media, which has replaced traditional media. Facebook and Twitter together now have a 70 percent market share of all media advertising, totally upending old patterns and creating a new paradigm. This has enabled citizen media to bypass mainstream media censorship and deliver information unfiltered to the public on a scale never seen before. This presentation will explore these concepts and also look at the corruption, graft and lies that were exposed during the election, the reactions to it and what the future holds for citizen journalism.

Sponsored by



# SCHEDULE OF EVENTS FEBRUARY 27 & 28

#### **MONDAY. FEBRUARY 27 CONTINUED**

12:00 PM - 12:30 PM

@ Valencia II-VII-I

Meeting of the Associate, International &

Certification/Testing Member Committee

Brad Corbett, Jr., Board Member/Committee Chair,

S & B Technical Products, Inc.

Discussion of Committee activities, review of previous minutes,

and election of Board Member.

#### **SOCIAL ACTIVITIES**

9:00 AM to 11:00 AM

@ Bella Vista (2nd Level)

#### **Spousal Orientation**

Overview of hotel, amenities and surrounding attractions. Includes mimosas, pastries, refreshments, painting instruction class and free personalized souvenir.

5:00 PM to 7:00 PM

@ Splash Patio

### Welcome & Networking Reception

Sponsored by







### **TUESDAY, FEBRUARY 28**

7:15 AM - 8:15 AM

@ Alicante Patio

Breakfast

8:15 AM - 9:00 AM

@ Valencia II-VII-I

#### **Executive Director's Report**

Bruce Hollands, PVC Pipe Association

#### **Technical/Market Development Committee Reports**

Steve Cooper, Randel Dobbs, PVC Pipe Association

#### Regional Engineer Reports

Steve Cooper, Randel Dobbs, Jay Parvez, Kyle Wroblewski, PVC Pipe Association

#### Senior Washington Consultant Report

Tim Burns, PVC Pipe Association

#### **TUESDAY. FEBRUARY 28 CONTINUED**

9:00 AM - 9:15 AM

@ Valencia II-VII-I

#### Chair's Remarks

John Britton, Vice Chair & Acting Uni-Bell Chair, Diamond Plastics Corp.

#### 9:15 AM - 10:15 AM

@ Valencia II-VII-I

#### Top 10 Tips: Communicating About Vinyl Safety

Keynote Speaker: Ronald W. Brecher, Ph.D., DABT, C.Chem.,

Toxicology and Risk Communication Expert

Perceptions about vinyl safety are influenced by information – and misinformation – in stories propagated in print and broadcast media, on the Internet and by word of mouth. This can create poor perceptions about the safety and environmental qualities of vinyl and vinyl-containing products, and can negatively influence purchasing decisions. Effectively responding to stakeholder concerns depends on four different aspects of credibility: the spokesperson, the information, the organization, and the engagement process. This presentation provides practical tips which will help you to more effectively engage customers, respond to negative perceptions and promote the sharing of accurate information about PVC pipe.

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10:15 AM - 10:30 AM

@ Valencia II-VII-I

**Break** 

#### 10:30 AM - 11:00 AM

@ Valencia II-VII-I

### PVC Use in Warm Climates and a Rational Design Procedure

Dr. Steven Folkman, Director of Utah State University's

**Buried Structures Laboratory** 

Current AWWA guidelines for de-rating a PVC pipe's pressure class assume the operating temperature is constant. It's common practice for designers to specify deratings based on maximum expected pipe temperature, which leads to selecting pipe wall thickness (DR) values larger than what is needed. This presentation shows the annual variation in pipe temperature is approximately sinusoidal and an approach is suggested that provides a more appropriately selected DR value. The result is also compared with the ISO 1452-2 standard.

# FEBRUARY 28 & MARCH 1 SCHEDULE OF EVENTS

#### TUESDAY, FEBRUARY 28 CONTINUED

11:00 AM - 11:30 AM

@ Valencia II-VII-I

### PVC Pipe's Significance in the Irrigation Water Delivery/Ag World

Ed Phillips, Head Water Master, A&B Irrigation District

Last year A&B Irrigation District in Rupert, Idaho constructed a new river pumping plant and installed 19 miles of PVC water pipe – 54" through 10" – to serve agricultural lands being watered at present by deep wells pumping from a declining aquifer. The design and installation considerations for this project will be discussed.

### 11:30 AM - 12:00 PM

@ Valencia II-VII-I

#### Engineering the Future of Piping

Dr. Robert (Bob) D. Stevens, Past President, American Society of Civil Engineers (ASCE)

With more than 150,000 members worldwide, ASCE focuses on improving infrastructure, including our nation's underground water and sewer pipe networks. This presentation will describe what ASCE does for infrastructure and how it supports the work of the piping industry through conferences, technical committees and its recently created ninth technical institute – the Utility Engineering and Surveying Institute (UESI).

#### **SOCIAL ACTIVITIES**

12:15 PM - 6:00 PM

@ Porte Cochere

# Uni-Bell Golf Tournament at Grayhawk Golf Course SHOTGUN & SCRAMBLE FORMAT

Lunch available for purchase.

Meet outside hotel lobby (Porte Cochere) at 12:15 PM.

#### **FREE EVENING**

### WEDNESDAY, MARCH 1

7:30 AM - 8:30 AM

@ Alicante Patio

**Breakfast** 

#### 8:30 AM - 9:00 AM

@ Valencia II-VII-I

Investment and Construction Trends in the Public Water and Wastewater Sectors

Richard F. Anderson, Ph.D., Senior Advisor,

U.S. Conference of Mayors Water Council

A look at local government spending on public water/wastewater services and infrastructure indicates that the long-term average Year-Over-Year growth rate of 7.2% (1956 to 2014: 58 years) is rapidly decelerating. The growth rate in the last 30 years averaged 5.5 percent; 4.7 percent over the last 20 years; 4 percent in the last decade and only 2.2 percent from 2013 to 2014. Growth is declining but spending continues at a record pace. Expenditures on pipes and pumps equaled \$18.5 billion in 2013 and is trending upwards. There are disparities in construction and investment in water systems compared to wastewater. The ratio of Operations & Maintenance (O&M) to capital spending is much higher for water than for wastewater. Since pipes are a significant component of construction spending in these sectors the growth in water spending suggests, among other factors, that pipe failure may be responsible for increased spending (and higher costs). Local governments continue to strain consumers with rising rates, adding impetus to the growth in smart water and wastewater investment. The supply chain for pipes and pumps is being scrutinized for better materials performance to extend the useful life of these systems at affordable rates for the public and private industry.

#### 9:00 AM - 9:30 AM

@ Valencia II-VII-I

# A Simplified Design Procedure for PVC to Account for Pressure Cycles/Surges

Ron Bishop, VP Engineering & Technical Services Diamond Plastics Corp.

One of the conditions design engineers face is selecting an appropriate pipe-wall thickness (or DR) that will accommodate both maximum operating pressure and repeated surge pressure events. Methods for assessing the number of cycles to failure are quite well developed for PVC pipe. Experience has shown that current AWWA guidelines are cumbersome and time-consuming for most design engineers to use. This presentation outlines a simple and conservative procedure that can be easily applied while accommodating multiple stress amplitudes.

# SCHEDULE OF EVENTS MARCH 1

#### **WEDNESDAY. MARCH 1 CONTINUED**

9:30 AM - 10:00 AM

@ Valencia II-VII-I

# Addressing Clean Water Availability Demands With a Purpose Driven Sustainability Strategy

Cristian Barcan, VP Sustainability & Industry Affairs, The Vinyl Institute (VI) With almost 10 billion people expected on the earth by 2050, we are facing unprecedented challenges to ensure adequate living needs in light of depleting natural resources and clean water availability. A well-positioned sustainable development strategy is key to addressing these needs and to helping identify measurable steps which will enable us to do more with less. This will entail the implementation of a continuous improvement-based approach and a joint effort of the entire vinyl industry. Key market segments such as PVC large diameter pipes have the opportunity to play a leadership role as part of a newly formed collaborative initiative, the Vinyl Business and Sustainability Council.

10:00 AM - 10:20 AM

**Break** 

10:20 AM - 10:50 AM

@ Valencia II-VII-I

#### NASSCO Moves Forward with the Industry

Lynn E. Osborn, Technical Director,

National Association of Sewer Service Companies (NASSCO)

A brief description of NASSCO and an overview of its activities, including partnerships with other industry organizations and academia. Also discussed will be NASSCO's Pipeline Assessment Certification Program (PACP) and how it specifically relates to the PVC pipe industry.

#### **WEDNESDAY. MARCH 1 CONTINUED**

10:50 AM - 11:50 PM

@ Valencia II-VII-I

# Upgrading America's Water Infrastructure and Correcting Environmental Injustice

Special Guest Speaker: Dr. Marc Edwards,

Charles Lunsford Professor of Civil Engineering, Virginia Tech

America's water infrastructure is failing and at a crossroads. In the past, legacy unlined iron pipe was considered a nuisance that caused rusty, distasteful water and wasted resources via leaks. But this antiquated pipe is now contributing to problems with lead, lost disinfectant residuals and higher incidence of waterborne disease such as that caused by Legionella in buildings. Fixing failing pipes is not only costly, but might also contribute to health risks by dislodging biofilms and introducing contaminants to water. The triple conservation conundrum is also a concern, in that water age (i.e., the time it takes water to travel from the treatment plant to the tap) is increasing due to 1) system wide water conservation and new water sources; 2) conservation in buildings; and 3) increased storage. These factors increase water quality degradation that occurs in water distribution systems. Increased "green" construction techniques and water conservation legislation are projected to have strong effects on water quality and waterborne disease due to increased water age in newer buildings — in some cities and towns declining population will play a similar role. The emerging linkage between decrepit infrastructure and health disparities will increase the impetus to invest in modern distribution systems that includes water mains and service lines.

Sponsored by



11:50 AM - 12:00 PM

@ Valencia II-VII-I

@ Palm Court

### **Closing Remarks**

John Britton, Vice Chair & Acting Uni-Bell Chair, Diamond Plastics Corp.

#### CONCLUSION OF ANNUAL MEETING PRESENTATIONS

12:15 PM - 4:00 PM

@ Bella Vista (2<sup>nd</sup> Level)

Board of Directors' Meeting and Luncheon

### **SOCIAL ACTIVITIES**

5:00 PM - 7:00 PM

Closing/Wrap-Up Reception

Entertainment and golf awards.

Cocktail/Sports Jacket (Tie Optional)

Sponsored by



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