

MWEA COLLECTION SYSTEM OUTREACH PROGRAM 12/12/23

SPEAKER BIOS AND ABSTRACTS

Mr. Dennis Pivin - CSP

Mr. Pivin has over 25 years of professional experience in safety, health and environmental program development, implementation and management and is currently a Safety, Health and Environmental Consultant. He has a BS in Chemistry, a BS in Biology and is a Certified Safety Professional (CSP), Certified Health and Safety Technician (CHST), and a Certified Instructional Trainer (CIT) with the Board of Certified Safety Professionals. He currently serves as the President of the St. Louis Chapter of the American Society of Safety Professionals, is the Chair of the Health and Safety Committee for NASSCO, and is a member of the Science and Technology Task Group for SIRC. In addition, has recently published a peer reviewed paper titled "Health Assessment from Cured-in-Place Pipe Lining Fugitive Styrene Emissions in Laterals" in the Journal of Pipeline Systems & Engineering Practices.

Confined Space and Trenching Safety

Identify and understand key characteristics and hazards that may occur in permit required confined spaces as they relate to infrastructure repair. This course will provide a deeper understanding in addressing the risks associated with infrastructure confined space in relation to protecting the health and safety of workers. Topics covered will include critical components of confined space such as permits, air monitoring, ventilation, harnesses, and retrieval equipment.

Michael Vavruska

Mike got his start in the wastewater industry with the **City of Marshfield** back in 2006, where he was the **Wastewater Collection Superintendent**, and later as the **Assistant Wastewater Treatment Plant Superintendent**.

After leaving Marshfield he spent 2 years with **Missouri Rural Water Association** (MRWA) serving as a **Wastewater Technicians** for the entire state of Missouri.

In January of 2022, Mike began with **Midwest Infrastructure Coatings** as their **Regional Director**.

Manhole rehabilitation

Prep process Prior to applying coatings:

- Grinding of the metal ring to remove all rust
- Power-washing at 4000 psi cleaning all grease foreign material and loose debris from the walls
- Once washed all materials from the invert will be removed and rinsed one last time
- Start the drying process **(Heat and force air to dry hole completely)**
- After the drying process is complete, all leaks and wet spots will be address using hydro cement or a chemical grout
- If any additional repairs are needed, they will be addressed at this time

Application:

- Steel Primer is applied on the metal ring to increase adhesion to the casting
- **(Adhesion layer)** 50 mils of OBIC 1000 polyurea will be applied from flow line in invert to metal ring below lid
- **(Surface Layer)** 400 mils of OBIC 1306 will be applied (6-8 PCF Closed-Cell Polyurethane Foam)
- **(Barrier Layer)** 50 mills of OBIC 1000 polyurea will be applied completing the 500-mil lining
- The second of the 2 crew members will then enter the structure to look to if there are any visible areas that need addressed and performs the Holiday Spark Test
- After this is completed and the structure passes the Holiday Spark Test, it receives a completion date stamp at the top of each structure which indicates the start of the 10 yr. warranty period.

**** Manholes will be ACTIVE during the application process. OBIC Armor can be applied in all temperatures ****

Structural Integrity: Polyurea adds some structural integrity to the area it is applied, it is not a rigid material! Flexibility and stability are the name of the game with Polyurea it will move and give with freezing and thawing temperatures and ground movement.

Brian T. McCrary P.E.

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Business Development Manager - Kansas City

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Current Position:

Kansas City Area Business Development Manager - Insituform Technologies. Responsible for the delivery of municipal water, storm and wastewater rehabilitation projects for the states of Kansas, Nebraska, and western Missouri. Brian has been with Insituform since May 1, 2008, working directly with local and regional municipalities in their efforts to rebuild aging sanitary sewers, water and storm water systems.

Education:

B S in Civil Engineering from Kansas State University in 1984; completed course work requirements for an M. S. in Civil Engineering from the University of Missouri with an emphasis in Structural Engineering and Construction Management.

Licensed Professional Engineer in the State of Missouri.

Previous Experiences:

Approximately eleven years as an Estimator / Project Manager / Principal with a Heavy Civil / Highway Construction firm.

Approximately five years as a Project Manager / Construction Manager with an Industrial Construction firm.

Approximately twelve years as a Design Engineer / Construction Manager with a Kansas City area Consulting Engineering firm.

CIPP 101 For Gravity and Pressure Pipe Applications –

Session covers pipe rehabilitation options, cured-in-place-pipe [CIPP] basics, a “trenchless technology” used to rehabilitate sanitary sewer, storm & water pipes [gravity and pressure pipe applications]. Also discussed will be CIPP Benefits, Gravity and pressure pipe technical envelopes, CIPP uses and options, and Installation Methods. Brief review of “Small Systems” Asset Management

David Hamberlin

David boasts an extensive background spanning over two decades in the investigation of sewer collection systems. Throughout his career, he has been involved in a diverse array of activities, encompassing fieldwork, oversight, and the management of over 450 projects.

A Comprehensive Guide to Sewer Cleaning

The importance of maintaining a clean and efficient sewer systems cannot be overstated. Sewer systems serve as the unsung heroes of urban infrastructure, ensuring the safe disposal of wastewater while protecting public health and the environment. The presentation "A Comprehensive Guide to Sewer Cleaning" delves into the critical aspects of sewer cleaning, shedding light on the reasons for cleaning, the types of equipment employed, nozzle selection, and the intricacies of the cleaning process.

1. **Why Clean Sewers?**

A clean sewer system is not just a matter of hygiene; it's essential for preventing blockages, avoiding sewer overflows, and extending the lifespan of infrastructure. This section will elaborate on the crucial reasons for sewer cleaning, making a compelling case for its importance.

2. **Types of Equipment: Tools of the Trade**

Effective sewer cleaning requires a range of specialized equipment. We'll explore the various types of machinery, including high-pressure water jetters, vacuums, and easement equipment, that are integral to the cleaning process. Understanding the equipment is vital for anyone involved in sewer maintenance.

3. ****Nozzle Selection: Precision and Efficiency****

The choice of nozzles plays a pivotal role in sewer cleaning. Different nozzles are designed for specific tasks and obstructions. We will provide insights into nozzle design, pressure requirements, and techniques to optimize cleaning. A well-informed nozzle selection can make all the difference in the efficiency and effectiveness of the cleaning process.

4. ****The Cleaning Process: From Start to Finish****

We will discuss step-by-step procedures, safety measures, and best practices for cleaning sewer systems. Participants will gain a clear understanding of how to plan and execute a successful cleaning operation, ensuring the long-term functionality of this critical infrastructure.

This presentation aims to equip professionals in the field, environmentalists, and anyone interested in sewer systems with the knowledge and tools necessary to ensure efficient and environmentally responsible sewer maintenance. Join as we venture into the depths of sewer cleaning, uncovering the practices and technologies that keep our cities clean, safe, and healthy.

Joel Ogle-

General Sales Manager, RedZone Robotics

Joel's journey in the water/wastewater industry began 20+ years ago, and over the years, he has amassed a wealth of experience and knowledge in the field. His passion for water-related technologies and commitment to delivering exceptional solutions have made him a recognized figure in the industry.

Beyond his role at RedZone Robotics, Joel Ogle is also a director for the Missouri American Water Works Association (AWWA), as well as the Missouri Water Environmental Association collections outreach coordinator. This involvement showcases his dedication to staying actively engaged in industry advancements, networking with peers, and contributing to the development and enhancement of water-related practices and policies in the region.

With a strong track record of success and a deep understanding of the water industry, Joel Ogle continues to make significant contributions to the growth and innovation of the sector. Joel remains a driving force behind the advancement and sustainability of water-related technologies and practices for a better future.

Joel's educational studies prior to and after his military service have included Applied Science and business disciplines.

MSI and AI for Asset Management

The purpose of this presentation is to educate participants on condition assessment as part of a wastewater collection system asset management program. This includes both historical and current challenges, as well as potential benefits.

The participants will learn:

- Status of US wastewater infrastructure
- Need to maintain wastewater collection systems
- Types of condition assessment
- A better understanding of multi-sensor inspection
- Maintaining service levels at the lowest possible cost

Jonathan Lyke, Project Manager, BMcD,

Commentary:

Jonathan provides data analysis, management, and mapping for flow monitoring projects. He brings extensive knowledge of both separated and combined sewer systems, I/I studies, flow monitoring data collection and analysis, GIS mapping, and drone operations. He is responsible for the investigation, installation, and maintenance of both the City's Smart Sensor network and Smart Sewer Program flow meters, which includes more than 360-meter sites across the city. He is NASSCO certified for LACP, MACP and PACP. He is proficient in Waterspout, ARCGIS (mobile/desktop/Pro), Flowlink Pro, Granite XP, HOBOWare, Bentley Software (Pointools Connect Edition/MicroStationV8i), Cloud Compare, Autodesk-Revit, FloVENT Modeling, Google Sketch-up, and Microsoft Excel (LVL. DM) and Access.

Professional:

Project Manager, Smart Sensor Network 2022-Present
Project Manager, KOTR, 2022-2023
Project Lead, Smart Sensor Network, 2016-2022
Project Manager, Interconnect Meters, 2016-2021

Education:

B.G.S, Liberal Arts and Sciences, University of Kansas, 2015

Bob Glenn, Regional Manager, Western & Gulf Coast regions

Commentary:

Bob Glenn's passion for water quality issues is deeply engrained in his Midwestern roots and love of the outdoors. As a young man and avid fisherman, he quickly realized the profound importance that the Clean Water Act would play in affecting some of his favorite places on Earth. Driven by this knowledge, he has been an advocate and professional in the water quality/wastewater instrumentation field for over 30 years. During this time, his experience has

carried him from the classroom, to the field (and stream), and ultimately, to the boardroom. His extensive knowledge in the realms of field applications, instrumentation, government, water/wastewater treatment, and research techniques has made him a much sought after presenter for technical seminars and state water quality conferences. An accomplished and entertaining speaker, Bob's most recent efforts have been focused on providing technical training and insight for engineers, consultants, and government employees engaged in flow monitoring and storm water sampling projects.

Professional:

Western/Gulf Coast U.S. Manager, Teledyne Isco 2020-present
Western U.S. Sales Manager, Teledyne Isco 2005-2020
Central U.S. Sales Manager, Isco Inc. 2003-2005
Environmental Applications Specialist, Isco Inc. 1999-2003
Field Supervisor, Environmental Technician group, Sanitary Engineering Division, Lincoln (NE) Wastewater System 1996-1999
Environmental Technician, Sanitary Engineering Division, Lincoln (NE) Wastewater System 1991-1996

Education:

BA, Environmental Studies, University of Nebraska-Lincoln, May 1990

Affiliations:

Nebraska Water Environment Association
Wisconsin Wastewater Operators Association
Loup-Cedar River Rats Society

Awards/Commendations:

NWEA Operations Award, 1998
EPA Region VII Water Quality Award, 1995
EPA Region VII Sludge Management Award, 1993

Collection System Flow Monitoring

Flow metering with purpose.

SUMMARY

This short presentation will discuss the reasons for conducting flow metering. From pre to post rehab, inflow and infiltration, system capacity, model updates, city interconnections, and more.

This presentation will discuss flow metering/measurement in open channel wastewater collection systems. Open channel flow basics are covered, as well the reasons behind why this is done and the technologies that are typically used to do it.

OUTLINE

- Reasons to meter flow?
 - Pre/Post

- I/I
- System Capacity
- Model
- BMcD Example Projects
 - KCMO
 - Joplin
- Lessons Learned
 - More is not always better.
 - Planning.
 - Never too late to adjust.

Dustin Kielbey:

As a third generation Tnemec coating consultant, Dustin brings along a brand familiarity to Midwest Coating Consultants that spans most of his life. His father was one of the principals of the agency and has been associated with Tnemec for more than 40 years, and his grandfather served as a vice president at Tnemec corporate headquarters and later operated his own agency. Over the last 16 years with Midwest Coatings, Dustin has learned that quality customer service and having a product that you believe in are instrumental to maintaining the success of the agency. He holds a bachelor's degree in Marketing from Missouri State University, located in Springfield. In his downtime, you can find Dustin enjoying time with his wife and two daughters, out playing a round of golf or just being around friends and family.

Coarse description:

We will discuss what structural epoxies are and how they mitigate I/I

Training Day Summary and Q&A

The team of presenters will take questions from attendees to discuss how the day's material interrelates and can assist them in making more informed decisions about how to maintain their respective municipality's collection systems.