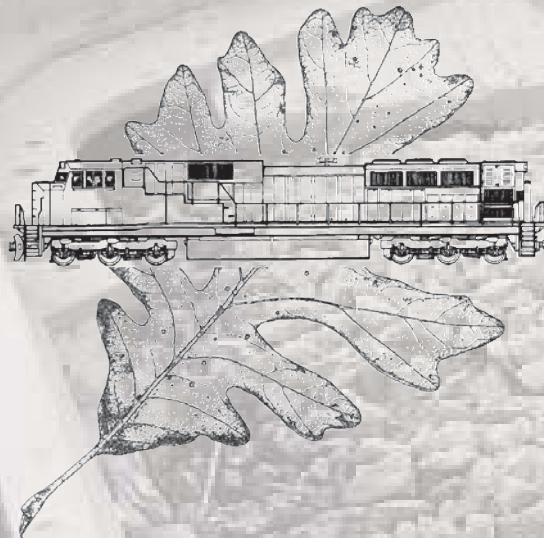


# 2009 RAILROAD ENVIRONMENTAL CONFERENCE

OCTOBER 27-29, 2009

ILLINI UNION  
1401 W. GREEN ST,  
URBANA, IL



FINAL PROGRAM



# ILLINOIS

RAILROAD ENGINEERING PROGRAM



American Short Line and  
Regional Railroad Association

## AREMA

American Railway Engineering and  
Maintenance-of-Way Association



## RAC

The Railway Association of Canada



ASSOCIATION  
OF AMERICAN  
RAILROADS

## SUPPORTERS 2009

We wish to recognize and thank our Railroad Environmental Conference - 2009 Supporters. Their financial support is an essential component in making this event a success

### 10+ YEAR SUPPORTERS:



**Kennedy/Jenks Consultants**  
Engineers & Scientists



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### 5+ YEAR SUPPORTERS:



**Gannett Fleming**



**ARCADIS**  
Infrastructure, environment, facilities



**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING



Distinguished Supporter:



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## Conference Overview and Featured Events

### MONDAY, OCTOBER 26TH, 2009

Exhibitor set-up 2:00pm - 6:00pm

### TUESDAY, OCTOBER 27TH, 2009

Continental Breakfast 7:00am - 9:00am

Registration Open 7:30am - 5:00pm

Presentation Sessions 8:00am - 12:00pm

AAR Environmental Excellence Award:

**Robert Fronczak**

*Assistant Vice President, Environment and Hazardous Materials*

*Association of American Railroads*

Luncheon and Supporter Acknowledgement 12:00pm

Presentation Sessions 1:25pm - 5:15pm

Reception/Poster Presentations 5:00pm - 6:30pm

AREMA COMMITTEE 13 BANQUET\*- Illini Union Ballroom - 2nd Floor

**Mel Burda**

**6:45pm**

*Director Environmental Operations - BNSF Railway*

*"Railroad Environmental Challenges: Past, Present, and Future"*

**Banquet**

**7:10pm**

**Edward Hamberger**

**8:00pm**

*President and Chief Executive Officer - Association of American Railroads*

*"Cap and Trade and Other Environmental and Energy Issues"*

### WEDNESDAY, OCTOBER 28TH, 2009

AREMA Committee 13 meeting 7:00am - 8:00am  
(Colonial Room - Illini Union - 1st Floor)

Continental Breakfast 7:00am - 9:00am

Registration Open 7:30am - 5:00pm

Presentation Sessions 8:00am - 11:35am

Luncheon 11:35pm

**F. Blair Wimbush**

**12:15pm**

*Vice President Real Estate and Corporate Sustainability Officer*

*Norfolk Southern Corporation*

*"Sustainability: A Closer Look"*

Presentation Sessions 1:00pm - 5:00pm

Supporter/Exhibitor Reception 5:00pm - 6:30pm

### THURSDAY, OCTOBER 29TH, 2009

Continental Breakfast 7:00am - 9:00am

Presentation Sessions 8:00am - 12:50pm

\*advance registration needed for AREMA banquet

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## Spoken Presentations

### TUESDAY 27 OCTOBER

7:00 - 8:00 Registration and Continental Breakfast  
8:00 - 8:10 Welcome and Introduction  
*Christopher Barkan - Professor, Director Railroad Engineering Program, University of Illinois at Urbana-Champaign*

### Energy, Emissions, and Air Quality

**Moderators: Stella Karnis - CN and Jay Martin - AMEC**

8:10 - 8:35 A Collaborative Effort in Building a Railroad-Related Emissions Inventory between Eastern States' Air Protection Agencies and Participation with the Railroad Industry

*Robert Fronczak - Association of American Railroads*  
*Michelle Bergin - GA Environmental Protection Division*  
*Matthew Harrell - EPA*  
*Julie McDill - Mid-Atlantic Regional Air Management Association (MARAMA)*  
*Dave Seep - BNSF Railway*

8:35 -9:00 The Challenges for Vehicle Fleet Managers in California

*Jon Germer - Union Pacific*  
*Brenda Douglass - Sierra Research*

9:00 - 9:25 Update on California Air Issues

*Dave Seep - BNSF Railway*

9:25 - 9:50 Fuel Cell-Hybrid Switch Locomotive for the Los Angeles Basin: Costs of Reducing Air-Pollution from Rail

*Arnold Miller, Kris Hess, Timothy Erickson, and James Dippo*  
*Vehicle Projects, Inc.*  
*Melanie D. Johnson - US Army Corps of Engineers*  
*Thomas Lambrecht - BNSF Railway*

9:50 - 10:30 PANEL: Environmental Implications and Opportunities of the Green and Sustainability Movements in the Railroad Industry

*John Morton and Tom Sanders - HDR Engineering, Inc.*  
*Mark Stehly - BNSF Railway*  
*Robert Fronczak - Association of American Railroads*  
*Anthony Erb - EPA*

**10:30 - 10:45 BREAK**

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## Spoken Presentations

TUESDAY 27 OCTOBER *(continued)*

### **Noise and Vibration** **Moderator: Lance Meister - HMMH**

- 10:45 - 11:10      Modeling Unique Locomotive Horn Noise Contours for the CN-EJ&E Environmental Impact Statement  
*Tim Casey - HDR Engineering, Inc.*
- 11:10 - 11:35      Determining an Appropriate Noise Impacts Methodology for a Proposed Intermodal Facility  
*Mike Parsons - HDR Engineering, Inc.*  
*Michael Stanfill - BNSF Railway*
- 11:35 - 12:00      Presentation of AAR Environmental Excellence Awards  
*Robert Fronczak - Association of American Railroads*

**12:00 - 1:25      LUNCH - 314 Illini Union**  
**Presentation of 2009 Supporter Awards**

### **Storm Water and Waste Water** **Moderator: Steve McNaughton - UP**

- 1:25 - 1:50      Water Distribution System Improvements for Enhanced Fire Protection  
*Stuart Boykin - CSX Transportation*  
*Robert Bates - RBA, Inc.*
- 1:50 - 2:15      Stormwater Management Through the Use of UICs and Other Best Management Practices at Industrial Facilities  
*Mark Ochsner - CH2M Hill*  
*Norm Siler - Union Pacific*

### **Capacity Projects** **Moderators: Kevin Keller - HDR and David Seep - BNSF**

- 2:15 - 2:40      Railway Development in an Age of Competing Requirements of Timely Decision Making and Public Participation  
*John Morton - HDR Engineering, Inc.*  
*Normand Pellerin - CN Railway*  
*Victoria Rutson - Surface Transportation Board*
- 2:40 - 3:05      Environmental Clearances Strategy for BNSF's Kansas City Intermodal Facility  
*Jeff Turner - HDR Engineering, Inc.*  
*David Seep - BNSF Railway*

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## Spoken Presentations

**TUESDAY 27 OCTOBER** *(continued)*

- 3:05 - 3:30      Everybody Wins When CSX Intermodal Plays Ball with the City of Columbus, Ohio  
*Nicole Heller Rottet and Jennifer Pyzoha Warf*  
*AMEC Earth & Environmental*  
*Hugh Perry - CSX Intermodal*
- 3:30 - 3:45      BREAK**
- 3:45 - 4:25      PANEL: DM&E Powder River Basin Expansion Project: Integrating Permitting and Design - A discussion of the engineering, environmental, and regulatory challenges of moving from approval of a route through to (near) construction.  
*Alan Stanfill, Michael Madson, Kelly Farrell, and Jill Rust*  
*HDR Engineering, Inc.*  
*Herb Jones - DM&E*  
*Randy Henke - HNTB (former DM&E)*

### **Ecological Conservation**

**Moderator: Don Girard - BNSF**

- 4:25 - 4:50      Creation of a Conservation Corridor for Stream Relocation and Mitigation – The BNSF Kansas City Intermodal Facility Case Study  
*Tim Fobes - HDR Engineering, Inc.*  
*Mike Stanfill - BNSF Railway*
- 5:00 – 6:30      Poster Presenter’s Reception – Illini Union South Lounge**
- 6:45              AREMA Committee 13 Banquet – Illini Union Ballroom**  
(advance reservations required)
- 6:45              AREMA Committee 13 Banquet Speaker**  
**Mel Burda**  
*Director Environmental Operations - BNSF Railway*  
**“Railroad Environmental Challenges: Past, Present, and Future”**
- 7:10              Banquet**
- 8:00              AREMA Committee 13 Banquet Speaker**  
**Edward Hamberger**  
*President and Chief Executive Officer*  
*Association of American Railroads*  
**“Cap and Trade and Other Environmental and Energy Issues”**

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## Spoken Presentations

### WEDNESDAY 28 OCTOBER

7:00 – 8:00 AREMA Committee 13 Meeting – Colonial Room Illini Union - 1st Floor  
7:00 – 8:00 Registration and Continental Breakfast

#### Training

**Moderator: Geoff Reeder - UP**

8:00 - 8:25 The Art of Reading a Lab Report - Can You Pass the Test?  
*Rock Vitale and Ruth Forman - Environmental Standards, Inc.*

8:25 - 8:50 The 2009 CSX Storm Water Training Module  
*Kenneth Richardson - ARCADIS US, Inc.*  
*Jerry Cato - CSX Transportation*

#### Compliance and Environmental Management

**Moderators: Melissa Godlewski - Kennedy/Jenks**

8:50 - 9:15 Environmental Issues Confronting the Association of American Railroads and North American Rail Industry  
*Robert Fronczak - Association of American Railroads*

9:15 - 9:40 Development of Industry-wide Guidance Document for the new Environment Canada Petroleum Storage Tank Regulations  
*Craig Fisher - STRAGIS Environmental Services, Inc.*  
*Robert McKinstry - Railway Association of Canada*

9:40 - 10:05 Working with the Army Corps of Engineers  
*Mel Burda - BNSF Railway*

**10:05 - 10:25 BREAK**

#### Passenger Rail

**Moderator: Bernie Noonan - EMR**

10:25 - 10:50 Sustainable Design Elements of the Babylon Long Island Rail Road Train Wash  
*Gary Rozmus and Michael Savarese - Gannett Fleming, Inc.*  
*Robert Haynie - Long Island Rail Road*

10:50 - 11:15 EMS Without the Mess: A Simplified but Comprehensive Environmental Management Systems for the Massachusetts Bay Commuter Railroad  
*Jason Hnatko and Sean O'Brien - Malcolm Pirnie, Inc.*



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## Spoken Presentations

**WEDNESDAY 28 OCTOBER** *(continued)*

11:15 - 11:40      Use of Multi-Phase Extraction to Clean a Large Scale  
Historical Fuel Oil Spill  
*Tony Dappas and Jim Powell - AMEC*

**11:40 - 1:20      LUNCH - 314 Illini Union**  
**Keynote Speaker:**  
**F. Blair Wimbush**  
*Vice President Real Estate and Corporate Sustainability Officer  
Norfolk Southern Corporation*  
*"Sustainability: A Closer Look"*

1:20 - 1:45      Innovative Stormwater Management Solutions at the Long Island  
Rail Road Long Island City Diesel Yard  
*Gary Rozmus and Michael Savarese - Gannett Fleming, Inc.*

### **Environmental Response**

**Moderator: Tom Fuhrhop - Golder**

1:45 - 2:10      Sampling and Analysis Plan Streamlined During  
Derailment Response  
*Martina Schlauch Jones, Adam Tokarski, Kevin Peterburs,  
and Michele Gurgas - ARCADIS US, Inc.*  
*Geoffrey Reeder - Union Pacific Railroad*

2:10 - 2:35      An Ecological Approach to Train Derailments and  
Emergency Response Activities  
*Carl Gerhardstein - CSX Transportation*  
*Jamie Krejsa - Enviroscience Inc.*

**2:35 - 2:55      BREAK**

### **Sustainability**

**Moderators: Gary Rozmus - Gannett Fleming**

2:55 - 3:20      Web-Based Greenhouse Gas and Sustainability Metrics Tracking  
*Chuck Mason - Gannett Fleming, Inc.*

3:20 - 3:45      The Rail Yard of the Future – Rail Yard 2020  
*Ken Richardson - ARCADIS US, Inc.*  
*Rick Nath - CSX Transportation*

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## Spoken Presentations

**WEDNESDAY 28 OCTOBER** *(continued)*

### **Risk Management** **Moderators: Rick Nath - CSX**

- 3:45 - 4:10      Environmental Risk Analysis of Railroad Transportation of Hazardous Materials  
*M. Rapik Saat, Christopher P.L. Barkan, Charles Werth, David Schafer, Hongkyu Yoon, Neha Hridaya*  
*University of Illinois at Urbana-Champaign*
- 4:10 - 4:35      Development of Chemical Property Information Necessary for Environmental Risk Assessment of Railroad Spills of Chemical Mixtures  
*Amanda Marruffo, Hongkyu Yoon, Charles J. Werth, David J. Schaeffer, M. Rapik Saat and Christopher P.L. Barkan*  
*University of Illinois at Urbana-Champaign*
- 4:35 - 5:00      A Quantitative Risk-Based Methodology for Assessing the Potential Impacts of Hazardous Materials Transportation  
*Kevin Keller - HDR Engineering, Inc.*  
*Matthew Forister - Association of American Railroads*
- 5:00 – 6:30      **Exhibitor's Reception – Illini Union Exhibitor Hall**

## **THURSDAY 29 OCTOBER**

- 7:00 – 8:00      Registration and Continental Breakfast

### **Risk Management - Continued** **Moderators: Kevin Hauschildt - NS and Hadley Stamm - ARCADIS**

- 8:00 - 8:25      Risk Management of KCS's Mexican Assets  
*Tim Wippold - ARCADIS US, Inc.*  
*Chet Culley - Kansas City Southern Railway*
- 8:25 - 8:50      A Model and Tools for Assessing Transload Operations  
*Norman Parker and Jenni Melder - Parker and Associates*
- 8:50 - 9:15      Regulatory Changes to Common Railyard Chemicals of Concern: Impact on Remedial Decisions and Railroad Operations  
*Glenn Millner and Alan Nye - CTEH*

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## Poster Presentations

**THURSDAY 29 OCTOBER** *(continued)*

### Remediation

**Moderators: Leo Thorbecke - AECOM and John Williams - Pace**

- 9:15 - 9:40      Case Study: How a More Reliable Site Conceptual Model Can Lead to a More Clearly Defined Remediation Strategy and Endpoint Criteria  
*Andrew Kirkman - AECOM*  
*Bob Strong - CN Railway*
- 9:40 - 10:05      The Use of Electrical Resistivity and Induced Polarization Surface Geophysics for Non Invasive High Resolution Characterization of Non-Aqueous Phase Liquid Distribution in the Shallow Subsurface  
*Boyce Clark and Jim Cloonan - ARCADIS US, Inc.*  
*Paul Kurzanski - CSX Transportation*
- 10:05 - 10:20      BREAK**
- 10:20 - 10:45      LNAPL Dye Tracer Tests for LNAPL Mobility Assessment  
*Brad Koons and Jonathon Smith - ARCADIS US, Inc.*  
*Paul Kurzanski - CSX Transportation*
- 10:45 - 11:10      Investigation of a Fuel Release in Steeply-Sloping Terrain Adjacent to a River  
*Andrei Zawadzki, John Rea, and Alan Walker*  
*SNC-Lavalin Environment Inc.*
- 11:10 - 11:35      Use of the API Distribution and Recovery Model to Assist in Closing a LNAPL Site  
*Kevin Hauschildt - Norfolk Southern*  
*Trevre Andrews, Stephanie R. Knight, and James W. Sterling*  
*AECOM*
- 11:35 - 12:00      Leveraging Regulatory Program Knowledge and Strong Relationships with the Agency to Drive Closures in Illinois  
*Todd O'Brien and Adam Tokarski - ARCADIS US, Inc.*  
*Geoffrey Reeder - Union Pacific Railroad*
- 12:00 - 12:25      Fate and Transport of Ethanol in the Environment  
*John Landwehr - Pinnacle Engineering*
- 12:25              Adjourn  
Lunch on our own  
Exhibit Hall Closed

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## Poster Presentations

Poster presentations will be on display throughout the conference.  
There will be a special reception for poster presenters in the  
South Lounge on Tuesday, October 27th from 5:15 to 6:30pm.

### Compliance and Environmental Management

1. Full Hazardous Material Storage Compliance – Is it possible?  
*Dean Alcott - Safety Storage*  
*Jim Meyer - Jim Meyer Associates*
2. Scrubber Tower Installation to Achieve HAP Minor Source Designation  
Juniata Locomotive Shops Altoona, Pennsylvania  
*Robert Wallace - AECOM*
3. Decommissioning & Demolition: The Real Cost of Carrying Abandoned Structures  
*Andy Lewis, John Wise, and Timothy Cook - Golder and Associates*

### Environmental Response

4. Environmental Monitoring and Rehabilitation Following a Denatured  
Alcohol Tank Car Spill  
*Luc Paul Tousignant and Emilie Evrard - LPT Enviro inc.*

### Noise and Vibration

5. Spot vs. Continuous Measurements? - How Accurate are the Ldn Results?  
*Richard Letty, Martin Brien, Meng, Chng, and Wallace Lee*  
*KM CHNG Environmental Inc.*
6. Evaluating Freight Train Vibrations at Fermi National  
Accelerator Laboratory  
*Tim Casey - HDR Engineering, Inc.*

### Passenger Rail

7. The Effect of Design Parameters of Curved Track on Wear, Noise,  
and Lifetime of Rails in Greater Cairo Metro Network  
*Ahmed Abd Elmoamen - Cairo University*

### Remediation

8. Regulatory Closure Using Rapid Optical Screening Technology  
and Risk Assessment  
*Kevin Hauschildt - Norfolk Southern*  
*Stephanie Knight and Scott Keating - AECOM*
9. Environmental Remediation and Management of a Former CCA Wood Treating  
Facility, Winchester, Kentucky  
*Duane Graves - GeoSyntec*  
*Jamie Krejsa - EnviroScience, Inc.*  
*Paul Kurzanski - CSX Transportation*

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## Poster Presentations

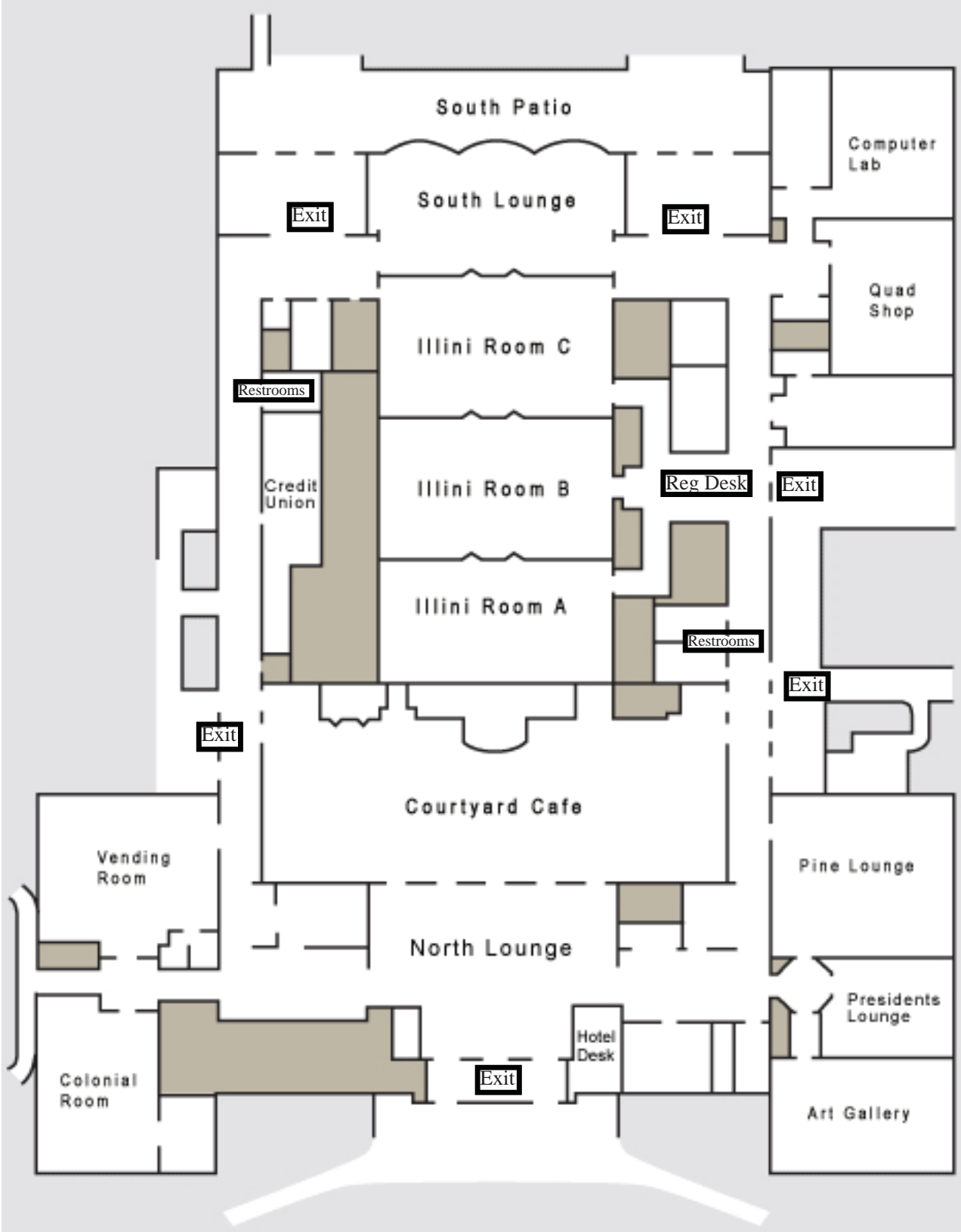
10. Remediation of TCE at an Active Railroad Yard Using In-Situ Oxidation and Bioremediation  
*Dale Markley - PSC Industrial Outsourcing, LP*
11. Evaluating the Feasibility of In Situ Thermal Treatment of Coal Tar beneath an Active Railyard  
*Ralph Baker, John LaChance, John Bierschenk, Gorm Heron and Randy Leach  
TerraTherm  
Jeffrey A. Clock - EPRI  
Dan V. Patel - Southern Company Services*
12. Reactive Zone with ZVI and Organic Carbon for In-Situ Chemical Reduction of PCE in Groundwater  
*John Valkenburg and Josephine Molin - Adventus Group  
Jeremy Haynes - Forrester Group  
Jeffrey McDermott - Union Pacific*
13. Fate and Transport of Ethanol in the Environment  
*John Landwehr - Pinnacle Engineering*
14. LNAPL Recovery Endpoint Metrics  
*Joshua Sales – Kennedy/Jenks Consultants*
15. Automated Recovery of Free Phase Product Under Conditions Approaching Asymptotic  
*Tamara Buitendorp - AECOM*
16. Tailoring LTM Optimization Strategies: Lessons Learned from Case Studies of Large and Small Groundwater Sampling Networks  
*Kevin Peterburs, Philip Goodrum, and Timothy Negley - ARCADIS  
Geoffrey Reeder - Union Pacific*
17. Field Implementation of Sulfate Enhanced Biodegradation to Remediate Petroleum and MTBE Impacted Groundwater  
*James Cuthbertson and Benjamin Hansen - Delta Consultants*

### **Risk Management**

18. Risk Evaluation using Exposure Point Concentrations to Facilitate a Cost Effective Cleanup of Lead Impacts at a Leased Property  
*Bryant Griggs - ARCADIS  
Paul Kurzanski - CSX Transportation*
19. Environmental Risk Assessments – A Streamlined and Forward Looking Approach  
*Nick Martin and Keith Knoke - Delta Consultants*

### **Storm water and Waste Water**

20. Amending Environmental Approvals and Permits – A Scientific Approach  
*Rick Corbin - Canadian Pacific Railroad  
Jim Hartman and Lisa Topham - Greenland Consulting Engineers*



**Illini Rooms A,B,C, and South Lounge**

Illini Union  
1401 W. Green St.,  
Urbana, IL 61801  
217-333-4666  
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## *Exhibitors*

|   |  |
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| Accutest Laboratories                     | Hulcher Services, Inc.                       |
| Adventus Group, Inc.                      | Isotec                                       |
| AECOM                                     | JRW Bioremediation, LLC.                     |
| AMEC Earth & Environmental, Inc.          | Lancaster Laboratories, Inc.                 |
| ARCADIS US, Inc.                          | Marshall Miller & Associates                 |
| BELFOR Environmental                      | Miller Drilling Company                      |
| Century Group, Inc.                       | Oil Skimmers, Inc.                           |
| CETCO                                     | Pace Analytical Services, Inc.               |
| Conestoga-Rovers & Associates             | Pinnacle Engineering, Inc.                   |
| CTEH                                      | Polystar, Inc                                |
| Eagle SWS                                 | Portec Rail Products, Inc.                   |
| EMR, Inc.                                 | PSC  |
| Envirocon, Inc.                           | Regenesis                                    |
| Environmental Works, Inc.                 | Seaman Corporation                           |
| EnviroScience, Inc.                       | Seneca Companies                             |
| EQ - The Environmental<br>Quality Company | Shannon & Wilson, Inc.                       |
| First Response                            | Shaw Environmental &<br>Infrastructure, Inc. |
| Gannett Fleming, Inc.                     | SUNPRO                                       |
| Geo-Cleanse International, Inc.           | Terracon Consultants                         |
| Geosyntec                                 | TerraTherm, Inc.                             |
| Golder Associates, Inc                    | Test America                                 |
| HDR Engineering, Inc.                     | URS Corporation                              |
|   | Waste Management, Inc.                       |

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## *Planning Committee*

|                                    |                                 |
|------------------------------------|---------------------------------|
| Riaz Ahmed – TRC                   | Ken McHale – Metro-North RR     |
| Chris Barkan – UIUC                | Steve McNaughton –UP            |
| Robert Fronczak – AAR              | Lance Meister – HMMH            |
| Tom Fuhrhop – Golder               | Bernie Noonan – EMR             |
| Don Girard - BNSF                  | Geoff Reeder – UP               |
| Melissa Godlewski – Kennedy Jenks  | Ken Richardson – ARCADIS        |
| Suzan Gonder - Environmental Works | Ken Roberge – CP                |
| Kim Hagemann – UIUC                | Ken Rose – OmniTRAX             |
| Kevin Hauschildt – NS              | Gary Rozmus – Gannett Fleming   |
| Martina Schlauch Jones – ARCADIS   | Richard Russell – NS            |
| Stella Karnis – CN                 | Lanny Schmid – UP               |
| Scott Keating – AECOM              | David Seep – BNSF               |
| Kevin Keller – HDR                 | Hadley Stamm – ARCADIS          |
| Chris LoRusso – AMTRAK             | Leo Thorbecke – AECOM           |
| Jay Martin – AMEC                  | John Williams – Pace Analytical |

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## *Conference Organizing Team*

|                |                |
|----------------|----------------|
| Chris Barkan   | Josh Houston   |
| Jerri Lyn Beck | Mary Nokes     |
| Kim Hagemann   | Kelcey Willmot |

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## *Useful Telephone Numbers*

|                          |              |
|--------------------------|--------------|
| RREC Registration Desk   | 217-689-1210 |
| Hampton Inn              | 217-337-1100 |
| Hawthorn Suites          | 217-398-3400 |
| Hilton Garden Inn        | 217-352-9970 |
| iHotel                   | 217-819-5000 |
| Illini Union Guest Rooms | 217-333-3030 |
| Illini Taxi              | 217-359-8634 |
| Yellow Cab               | 217-355-3553 |
| U of I Golf Courses      | 217-359-5613 |

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## *Conference Location*

**Illini Rooms A,B,C, and South Lounge**  
Illini Union  
1401 W. Green St.,  
Urbana, IL 61801  
217-333-4666