2009 Railroad Environmental Conference

October 27-29, 2009

Illini Union
1401 W. Green St,
Urbana, IL

Final Program

ILLINOIS Railroad Engineering Program
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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*
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
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
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

            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”
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.
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 - Envirosience 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
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

Glenn Millner and Alan Nye - CTEH
## Poster Presentations

**Thursday 29 October** (continued)

### Remediation

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

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<th>Time</th>
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| 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 |
**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
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
## Exhibitors

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<td>Adventus Group, Inc.</td>
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<td>AECOM</td>
<td>JRW Bioremediation, LLC.</td>
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<td>AMEC Earth &amp; Environmental, Inc.</td>
<td>Lancaster Laboratories, Inc.</td>
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<td>ARCADIS US, Inc.</td>
<td>Marshall Miller &amp; Associates</td>
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<td>BELFOR Environmental</td>
<td>Miller Drilling Company</td>
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<td>Century Group, Inc.</td>
<td>Oil Skimmers, Inc.</td>
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<td>CETCO</td>
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<td>CTEH</td>
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<td>Eagle SWS</td>
<td>Portec Rail Products, Inc.</td>
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<td>EMR, Inc.</td>
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<td>Envirocon, Inc.</td>
<td>Regenesis</td>
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<td>Environmental Works, Inc.</td>
<td>Seaman Corporation</td>
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<td>EnviroScience, Inc.</td>
<td>Seneca Companies</td>
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<td>EQ - The Environmental Quality Company</td>
<td>Shannon &amp; Wilson, Inc.</td>
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<td>First Response</td>
<td>Shaw Environmental &amp; Infrastructure, Inc.</td>
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<td>Gannett Fleming, Inc.</td>
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<td>Geo-Cleanse International, Inc.</td>
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<td>Golder Associates, Inc</td>
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<td>HDR Engineering, Inc.</td>
<td>URS Corporation</td>
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<td>Waste Management, Inc.</td>
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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 Godlewska – 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

Conference Organizing Team

Chris Barkan  Josh Houston
Jerri Lyn Beck  Mary Nokes
Kim Hagemann  Kelsey Willmot

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

Conference Location

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

Website: http://ict.illinois.edu/railroad