

2005 RAILROAD ENVIRONMENTAL CONFERENCE

OCTOBER 25-27, 2005

Final Program



Co-Sponsors:



Supporters 2005

We wish to recognize and thank our Railroad Environmental Conference - 2005 Supporters. Their financial support is an essential component in making this event a success.

Kennedy/Jenks Consultants

Engineers & Scientists





CONFERENCE SCHEDULE

Monday, October 24th, 2005

Early registration and Exhibitor set-up	2:00pm - 6:00pm
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Tuesday, October 25, 2005

Continental Breakfast	7:00am - 9:00am
Registration Open	7:00am - 5:00pm
Presentation Sessions	8:00am - 12:05pm
Lunch	12:05pm - 1:30pm
Presentation Sessions	1:30pm - 5:00pm
AREMA Reception/Poster Presentations	5:00pm - 6:30pm
AREMA Dinner*	7:15pm - 9:30pm

DINNER SPEAKER: Dr. Barbara A. Carr

Spill Prevention , Control and
Countermeasures Coordinator
U.S. Environmental Protection Agency, Region 5

Wednesday, October 26, 2005

AREMA Committee 13 meeting	7:00am - 8:00am
Continental Breakfast	7:00am - 9:00am
Presentation Sessions	8:00am - 12:05pm
Presentation of AAR Environmental Excellence Award	11:35am - 12:00pm
Lunch	12:00pm - 1:15pm

KEYNOTE SPEAKER: John Wetzel

Assistant Vice President, Government Affairs
Association of American Railroads

Presentation Sessions	1:25pm - 5:00pm
Supporter/Exhibitor Reception	5:15pm - 6:30pm

Thursday, October 27, 2005

Continental Breakfast	7:00am - 9:00am
Presentation Sessions	8:00am - 12:05pm

PROGRAM
RAILROAD ENVIRONMENTAL CONFERENCE - 2005
UNIVERSITY OF ILLINOIS AT URBANA - CHAMPAIGN

2005 RREC Schedule

Tuesday, October 24, 2005

7:00 – 8:00 Registration and Continental Breakfast
8:00 – 8:10 Welcome and Introduction

**Emissions and Air Quality
Moderator: David Seep**

8:10 – 8:35 Roseville Yard Modeling—Results & Emissions
Reduction Strategies
Lanny Schmid – Union Pacific Railroad

8:35 – 9:00 Reducing Air Emissions the Smart Way – An Introduction
to Railroad Participation in EPA's SmartWay®
Transport Partnership
*Mike Zatz – U.S. Environmental Protection Agency
Office of Transportation and Air Quality*

9:00 – 9:45 PANEL DISCUSSION: New Locomotive Technologies
*Mike Iden – Union Pacific
Steve Fritz – Southwest Research Institute
Jon Germer – Union Pacific Railroad*

9:45 – 10:15 California Air Resources Board Memorandum of
Understanding of Particulate Matter
Lanny Schmid – Union Pacific Railroad

10:15 – 10:25 BREAK

10:25 – 10:50 Progress with Low-Emissions Switching Locomotives
Mike Iden – Union Pacific Railroad

Pollution Prevention
Moderators: Don Girard and Ken Rose

- 10:50 – 11:15 Talkin' Trash with Recyclin' Rita
Rita Meyer – EMR
- 11:15 – 11:40 Six Sigma Applications to Coal Dust Mitigation
Gibson Barbee – Norfolk Southern Railway Company
- 11:40 – 12:05 Findings of AAR Nozzle Tests and Implementation
John Hasterlo – Union Pacific Railroad
Ken Rose – Cameron-Cole
Frank Bozeman – Bozeman Engineering
- 12:05 – 1:30 LUNCH – 314 Illini Union**
- 1:30 – 1:55 Reducing the Aerodynamic Drag of Empty Coal Cars
Bruce Storms – AerospaceComputing, Inc.
James Ross – NASA Ames Research Center
Dan Dzoan – Ohlone College
- 1:55 – 2:20 Return on Investment from Rail Transit Use of Wayside
Energy Storage Systems
Louis Romo and Octavio Solis – Vycon
David Turner – Turner Engineering Co.
John Ponzio – STV, Inc.
L.S. Brian Ng – Brian Ng Engineering, Inc.

Noise and Vibration
Moderators: Don Girard and Ken Rose

- 2:20 – 2:45 Noise Assessment Leading to the FRA Rule on the Use of
Locomotive Horns at Grade Crossings
Lance Meister – Harris Miller Miller & Hanson Inc

Storm and Waste Water
Moderator: Kevin Hauschildt and Steve McNaughton

- 2:45 – 3:10 Stormwater Management in Regulated Municipal Programs
Melvin L. Burda and James Cunningham
BNSF Railway

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- 3:10 – 3:25 BREAK**
- 3:25 – 3:50 Use of an Unsteady HEC-RAS Model to Evaluate
Surcharging in a Process Water System During Storm Events
*Rory Mullenex, Ted Cassidy, Suzanne Bailey and
Michael Konnovitch
Marshall Miller & Associates, Inc.
Chester A. Culley and Paul Kuhlmeier
Kansas City Southern Railroad*
- 3:50 – 4:15 Theory and Practice of Water-in-Oil Demulsification
*Dr. Sam Delchad – Emulsions Controls
Jim Gorley – Cameron-Cole, LLC*
- 4:15 – 4:40 Lessons Learned from Stormwater Assessments at Several
Major Railyards
Tony Truschel and Ken Rose – Cameron-Cole
- 4:40 – 5:05 Synthetic Liner Fundamentals for Railroad Environmental
Managers
Mark James – BNSF Railway
- 5:05 – 7:00 Poster Presenters Reception – Illini Union South Lounge**
- 7:15 AREMA Dinner – Illini Union Ballroom**
(advance reservations required)
1401 W. Green St. – Urbana, IL 61801
- 8:00 Guest Speaker**
*Dr. Barbara A. Carr
Spill Prevention, Control and Countermeasures Coordinator
U.S. Environmental Protection Agency, Region 5*

Wednesday, October 26, 2005

Compliance

Moderator: Chris LoRusso and Melissa Papworth

- 8:00 – 8:25 AAR Environmental Issues
Robert Fronczak – Association of American Railroads

8:25 – 8:50	<p>Approach to Coordinated Environmental Compliance for Rail Projects</p> <p><i>Jim Allison – Capitol Corridor Joint Powers Authority</i> <i>Jim Jordan – ERM</i></p>
8:50 – 9:15	<p>Spill Prevention, Control, and Countermeasure (SPCC) Regulations and the Rail Industry</p> <p><i>Kenneth Richardson</i> <i>AMEC Earth and Environmental Inc.</i> <i>Stuart Boykin and John Calhoun – CSX Transportation</i></p>
9:15 – 9:40	<p>Using Secondary Containment as Part of a SPCC Compliance Program</p> <p><i>Ray Bertolozzi – MPC Containment</i></p>
9:40 – 10:05	<p>SPCC Compliance Implementation Process and Progress</p> <p><i>Wayne Frank and Ken Rose – Cameron-Cole</i></p>
10:05 – 10:20	<p>BREAK</p> <p style="text-align: center;">Environmental Management Systems Moderator: Chet Culley and John Lynch</p>
10:20 – 10:45	<p>The Mobile Observatory for Control of Railroad Transport Impact on Environment</p> <p><i>I. Besedin – Russian Research Institute</i></p>
10:45 – 11:10	<p>Treatment, Storage and Disposal Facility Audit Management System</p> <p><i>Nick Nimmer and Frank Uhlarik – MFG, Inc.</i></p>
11:10 – 11:35	<p>Keeping a Project on Track: A Successful Approach to Managing Environmental Issues During Construction</p> <p><i>Paul Schaap – Dillon Consulting Ltd.</i> <i>Grete Bridgewater and Mark Seland</i> <i>Canadian Pacific Railway</i></p>
11:35 – 12:00	<p>Presentation AAR Environmental Excellence Award</p>

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- 12:00 – 1:15** **LUNCH, 314 Illini Union**
Keynote Speaker
John Wetzel
Assistant Vice President, Government Affairs
Association of American Railroads
- 1:15 – 1:40 CSXT Laboratory Program - Improving Data Quality and
Management Efficiency
Paul Kurzanski – CSX
Ann Bernhardt – AMEC
- Risk Management**
Moderator: Suzan Gonder and Rich Russell
- 1:40 – 2:05 Selling Surplus Railroad Properties—Turning Environmental
Impacts into Opportunities
Rick Adams and Sam Farnsworth
AMEC Earth & Environmental
Stacey Leitheiser – CSX Transportation
- 2:05 – 2:30 Sarbanes-Oxley and Environmental Liability and
Risk Management and BNSF EMCIP Tools
Mick Bilney – Frontier Environmental Services
Lyle Staley – BNSF Railway
- 2:30 – 2:55 Using Risk Assessment to Address Perceived Environmental
Risks Associated with Railroad Operations
Bill Williams, Laura Kennedy, Taku Fuji, and John Norris
Kennedy Jenks Consultants
- 2:55 – 3:20 Aviall vs. Cooper Industries – A Multidisciplinary Response to
the Supreme Court’s Ruling on Bringing Other PRPS to Pay
Their Share of Your Cleanup
David E. Cowen – McLeod, Alexander, Powel, Apffel, P.C.
Riaz Ahmed – TRC Environmental Corporation

3:20 – 3:35 **BREAK**

(concurrent with PM sessions)

2-4pm Proposal to form a new subcommittee of TRB hosted by AR020, Called
Subcommittee on Railroad Environmental Research Issues
Room 215 Illini Union



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- 3:35 – 4:00 Using GIS to Analyze Potential Threats to Sensitive Habitats
Along Transportation Networks
Chad R. Lupp – MFG
- 4:00 – 4:25 Managing Health Risk and Other Public Concerns at a Sensitive
Urban Site: Lessons Learned
Alan Nye – CTEH
- 4:25 – 4:50 Impacts of North American Railroads from Hurricanes
Katrina and Rita
Kevin Keller – Shaw Environmental & Infrastructure, Inc.
- 4:50 – 5:15 Revitalization Along Scenic Highway – Melding Environmental
Restoration and Neighborhood Revitalization
Paul Kuhlmeier and Chester A. Culley
Kansas City Southern Railway

Thursday, October 27, 2005

Remediation

Moderator: Stella Karnis and Leo Thorbecke

- 8:00 – 8:25 Troubleshooting Containment System Leaks at BNSF's
Hauser, ID Locomotive Fueling Facility
David Clark and Bruce Sheppard – BNSF Railway
Bruce Williams – GeoEngineers
- 8:25 – 8:50 Coupling the National Historic Preservation Act, Voluntary
Remediation Program, Brownfields and TSCA, a Case Study
Wade Bishop – Norfolk Southern
- 8:50 – 9:15 Thermally Enhanced Soil Vapor Extraction to Remediate
Volatile Organic Compounds
Jim Levy and Joel Strafelda – Union Pacific Railroad
Marc Carver and Jay Dablow – ERM
- 9:15 – 9:40 In-situ and Enhanced Biological Degradation of Diesel
Compounds in Soil and Groundwater at a Former
Locomotive Fueling area
Bruce Nelson and Andrew Vitolins – Malcolm Pirnie, Inc.
LeeAnn Thomas and Peter Cangialosi
Canadian Pacific Railway

9:40 – 10:05	Seep Mitigation - A Winning Solution <i>Keith A. Brinker – CSX Transportation</i> <i>Denis Balcer and Joseph Riepenhoff – ARCADIS</i>
10:05 – 10:20	BREAK
10:20 – 10:45	Tools for Eliminating Ecological Exposure Pathways: Case Study in Texas <i>Eric Matzner – Pastor, Behling & Wheeler, LLC</i> <i>Geoffrey Reeder – Union Pacific Railroad</i>
10:45 – 11:10	Natural Resource Damage Assessment (NRDA) to Groundwater <i>Riaz Ahmed and Tim Wippold</i> <i>TRC Environmental Corporation</i>
11:10 – 11:35	Computer Visual Imagery – A Powerful Tool in Site Investigation, Characterization, and Legal Support <i>Jeffrey A. Johnson, Judith McDonough, Meng Ling,</i> <i>and Kurt Geiser</i> <i>RETEC</i>
11:35 – 12:00	Using Environmental Forensics to Unravel Environmental Liability <i>Lori VanderKam – Earth Tech</i> <i>Stella Karnis – CN</i>
12:00 – 12:25	Vapour Intrusion from Stove Oil into Residential Indoor Air Space <i>Glenn Wood, Phil Moddle, Andrea Amendola,</i> <i>and Lilly Bojarski</i> <i>Golder Associates</i> <i>Mark Goldberg – GlobalTox International Consultants</i> <i>Nick Coleman – CN</i>
12:25	Adjourn Lunch on you own Exhibits Close

2005 Railroad Environmental Conference

Poster Presentations

Illini Union South Lounge

Tuesday, Wednesday, and Thursday

(There will be a special reception for the poster presentations on Tuesday 25
October from 5:30 – 7:00 in the Illini Union South Lounge)

Emissions and Air Quality

Characterization of Particulate Emission from Diesel Locomotive Engine and
Estimation of Its Particulate Emission Rates
Duckshin Park – Korea Railrad Research Institute
Youngmin Cho – Korea Railroad Research Institute

AST- Above Ground Storage Tank Integrity Test
Kevin Kupitz – TCI Services Inc.

Risk and Liability Management

Risk Management and Remediation of a 100+ year old Rail Yard
John Larson – TRC

Universal laboratory van for radiation and chemical monitoring
Vladimir Reshetov – STC “RADEC”

Remediation

Assessing and Mitigating Petroleum Hydrocarbon Seeps
Wade Bishop – Norfolk Southern Railroad

Chemical Oxidation of a Diesel Release in Saturated and Unsaturated Soils
Bruce Nelson and Andrew Vitolins – Malcolm Pirnie
LeeAnn Thomas – Canadian Pacific Railway

Groundwater Bioremediation Of A Railroad Spill Using Pure Oxygen
Pat Harrison and Tom Hensel – AMEC Earth & Environmental
Matt Adkins – CSX Transportation
Don Ray – inVentures Technologies Incorporated

Implemented Remediation Techniques to Address Derailment Impacts Sustained in a River Equipment
Timothy Ahrens – AMEC Earth and Environmental Inc.

Use of Light-Induced Fluorescence in LNAPL Assessment at Railroad Sites
Andrew Kirkman – RETEC

Railroad Environmental Conference

12-14 October 2004

General Information

Local Transportation: Free shuttle buses will be running between these hotels (Holiday Inn, Hampton Inn, and Sleep Inn) and the Illini Union on the following schedule:

Tuesday, Wednesday, & Thursday	7:00 - 9:00am
Tuesday & Wednesday	4:00 - 7:00pm
Tuesday	8:00 - 10:00pm
Thursday	11:00 - 2:00pm

At all other times, the hotels have said that they will transport people using their own shuttle van if it is available. Their telephone numbers are: Hampton Inn 338-1100, Holiday Inn 328-7900, and Sleep Inn 367-6000. The main entrance to the Illini Union is on Green Street between Wright & Mathews. The Hampton Inn is walking distance to the Illini Union.

Airport Transportation: The Champaign-Urbana (Willard) airport is located on Rt. 45 (Neil St. in Champaign) approximately 6 miles south of downtown. Allow 25 minutes to drive there from campus. Both hotels offer free shuttle van service to and from the airport. Taxi's can be used for about \$10: Campus Taxi 217-355-8634, Corky's Cab 217-352-3121, Yellow Checker Cab 217-355-1328, Illini Limo 217-355-0683.

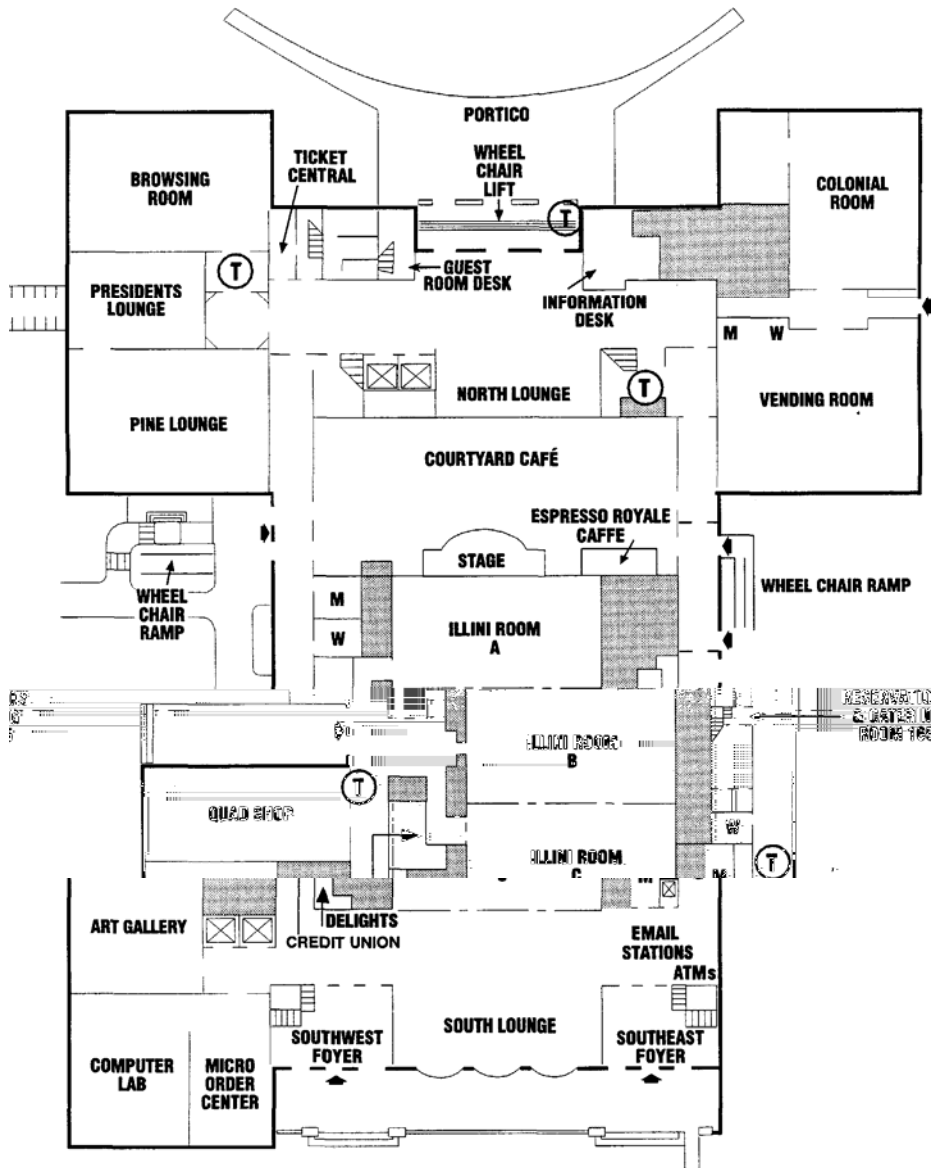
Conference Registration: Registration will be open at the Illini Rooms in the Illini Union on the University of Illinois campus beginning at 7:00am Tuesday 25 October.

Schedule: The conference program begins at 8:00am Tuesday morning and will be held in Illini Rooms A, B, C, & South Lounge of the Illini Union. There will be a continental breakfast each morning beginning at 7:00am. Lunch will be provided to conference registrants on Tuesday and Wednesday. Thursday lunch is on your own.

Attire: The recommended dress for the conference is "business casual"

AREMA Dinner: The AREMA Committee 13 dinner will be held Wednesday evening in the Illini Union Ballroom. The cost for the AREMA Dinner is \$35 and advance reservations are required. Tickets can be purchased at the registration desk.

Map of Union



<p>Exhibitors</p> <p>Railroad Environmental Conference - 2005</p> <p>Illini Union, Illini Rooms B & C</p>
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Accu Test	New Age / Landmark
AMEC	Pace Analytical
ARCADIS	Philip Services
Blackhawk Company	Plastic Fusion
Camp Dresser & McKee	Portec Rail Products
Century Group	Rail Power
Conestoga-Rovers	RETEC
CTEH	Seaman Corporation
Earth Tech	SES
ECCS	Shaw
ERM	Severn Trent Laboratories
Enkon	Summit Environmental Services
Gannett Flemming	Sunpro
Golder	Test America
HMMH	Titon Engineering
Hulcher	TKDA
Marshall Miller	Universal Remediation
MFG	URS
	X-Interchange

Conference Planners

Chris Barkan – UIUC	John Lynch – RETEC
Wade Bishop – NS	Jay Martin – AMEC
Grete Bridgewater – CP	Steve McNaughton – UP
Chet Culley – KCS	Keith Miller – NS
Bob Fronczak – AAR	Rick Nath – CSX
Don Girard – BNSF	Geoff Nokes – CN
Susan Gonder – Environmental Works	Bernie Noonan – EMR
Kim Hagemann – UIUC	Melissa Papworth – Kennedy Jenks
Carl Hanson – HMMH	Geoff Reeder – UP
Kevin Hauschildt – NS	Ken Richardson – AMEC
Martina Schlauch Jones – TRC	Ken Rose – Cameron-Cole
Stella Karnis – CN	Richard Russell – NS
Kevin Keller – Shaw	Lanny Schmid – UP
Chris LoRusso – AMTRAK	David Seep – BNSF
	Joel Strafelda – UP

Conference Organizers

Chris Barkan	Cristina Hermida
Carla Blue	Steven Judd
Fernando Cortes	Sejal Patel
Kim Hagemann	Ron Winburn

Useful Numbers

Holiday Inn 217-328-7900	Campus Taxi 217-355-8634
Hampton Inn 217-337-1100	Corky’s Cab 217-352-3121
Sleep Inn 217-367-6000	Yellow Checker 217-355-1325
Registration Desk 217-333-6825	UofI Golf Course 217-359-5613
Illini Union Guest rooms 217-333-3030	

Website: <http://cee.uiuc.edu/railroad>

