

2012 International Emission Inventory Conference

**“Emission Inventories – Meeting the Challenges Posed by Emerging Global,
National, Regional and Local Air Quality Issues”**



**Training August 13, 2012
Conference August 14 - 16, 2012
Tampa, Florida – Hyatt Regency**



Sponsored by:
Emission Inventory and Analysis Group
Air Quality Assessment Division
Office of Air Quality Planning and Standards

Welcome to the 2012 Emissions Inventory Conference

The US Environmental Protection Agency (US EPA) looks forward to your participation in the 2012 Annual Emissions Inventory Conference in Tampa, Florida August 13 – 16, 2012. This year's Conference focuses on how emission inventories meet the challenges posed by emerging global, national, regional and local air quality issues. This theme highlights issues such as:

- How can the emissions in these sectors improve?
- How inventories can be used to assess the impacts of transport on local NAAQS and other air quality issues;
- How inventories need to be adapted to support emerging climate issues (including multi-pollutant strategies for air quality vs climate benefits issues);
- How the NEI and other emission inventory collection efforts can benefit by looking to special studies and other active on-going research in the areas of focus for this conference;
- Which sectors in the inventory are the most difficult to characterize in a given area facing air quality and climate issues?

Training courses on different aspects of inventory use and preparation will be on Monday August 13, 2012. This year, in addition to usual courses on mobile source emissions (MOVES) and the Emissions Inventory System (EIS), we will also be offering training on EPA's Control Strategy Tool (CoST) and on the use of SMARTFIRE2 (SFv2) for wild land fire emissions. After the training day on Monday, the general Conference will open with a Plenary Session for all Conference attendees on the morning of Tuesday August 14, 2012. The plenary will include a welcome by the US EPA and local hosts, and a report from the US EPA Emissions Inventory and Analysis Group followed by a panel of speakers.

On Tuesday evening, we will have a Poster Session and Exhibitor Reception from 6:00 pm – 8:00 pm. Attending the reception is a great way to connect with other conference attendees and to discuss your air quality program needs with several exhibitors. We have a very interesting lineup of poster presentations and the authors will be available to explain their work and answer your questions.

This is a great opportunity to keep abreast of developments in the world of emissions data and to share your experiences with other emission inventory professionals from federal/state/local and international regulatory agencies, tribal governments, industry and academia. We think you will also enjoy being in Tampa and look forward to seeing you at the Conference.

US EPA Conference Organizers
Emission Inventory and Analysis Group
Office of Air Quality Planning & Standards

Schedule at a Glance

Date/Time	Session	Room
Mon Aug 13		
8:30 - 5:00	Emissions Inventory System (EIS)	Regency Ballroom #3
8:30 - 5:00	An Introduction to using MOVES at the National and County Levels	Regency Ballroom #5
12:00 - 1:00	Lunch (On Your Own)	
8:30 - 5:00	Control Strategy Tool (CoST) for States/Local/Tribes	Regency Ballroom #6
8:30 - 12:00	Utilizing Local Fire Information to Develop a NEI for Fires through SmartFire 2	Regency Ballroom #7
1:00 - 5:00	US Greenhouse Gas Emissions Inventory and Greenhouse Gas Reporting Program Data Publication Tool	Regency Ball room#7
Tues Aug 14		
8:30 - 10:00	Break	Regency Ballroom #2
10:00 - 10:30		
10:30 - 12:00		
12:00 - 1:00	Lunch (On Your Own)	
1:00 - 2:40	Session 1 - EI Preparation for Modeling	Regency Ballroom #2
	Session 2 - Biomass Burning	Regency Ballroom #5
	Session 3 - Greenhouse Gases	Regency Ballroom #7
2:40 - 3:10	Break	
3:10 - 4:55	Session 1 - Continues	Regency Ballroom #2
	Session 2 - Continues	Regency Ballroom #5
	Session 3 - Continues	Regency Ballroom #7
6:00 - 8:00	Poster Session and Exhibitors' Reception	Regency Ballroom #1
Wed Aug 15		
8:30 - 10:10	Session 4 - Tools - Leveraging Technology for Improvement	Regency Ballroom #2
	Session 5 - Stationary Sources/Nonpoint/Area Sources	Regency Ballroom #5
	Session 6 - Oil & Gas Exploration & Production	Regency Ballroom #7
10:10 - 10:40	Break	
10:40 - 12:00	Session 4 - Continues	Regency Ballroom #2
	Session 5 - Continues	Regency Ballroom #5
	Session 6 - Continues	Regency Ballroom #7
12:00 - 1:00	Lunch (On Your Own)	
1:00 - 2:40	Session 7 - GIS/Innovative Methods/Remote Sensing	Regency Ballroom #2
	Session 8 - Mobile Sources	Regency Ballroom #5
	Session 9 - Global/ International Issues	Regency Ballroom #7
2:40 - 3:10	Break	
3:10 - 5:55	Session 7 - Continues	Regency Ballroom #2
	Session 8 - Continues	Regency Ballroom #5
	Session 9 - Continues	Regency Ballroom #7
6:00 - 8:00	US EPA HQ/RO Meeting	Regency Ballroom #3

Schedule at a Glance (continue)

Date/Time	Session	Room
Thurs Aug 16		
8:30 – 10:10	Session 1- EI Preparation for Modeling	Regency Ballroom #2
	Session 8 - Mobile Sources	Regency Ballroom #5
	Session 10 - Air Toxics	Regency Ballroom #7
10:10 - 10:40	Break	
10:40 – 12:00	Session 2 - Biomass Burning Panel Discussion	Regency Ballroom #2
	Session 8 - Continues	Regency Ballroom #5
	Session 7 - GIS/Innovative Methods/Remote Sensing	Regency Ballroom #7
12:00	Conference Concludes	

TRAINING SCHEDULE

Monday – August 13, 2012

Course Title: Emission Inventory System (EIS)

Instructor: Sally Dombrowski, Madeleine Strum, Roy Huntley and Laurel Driver US EPA

Time: 8:30am – 5:00pm

Course Description

This course is a repeat of the webinars offered to State/Local and Tribal agencies over the past several months. We will cover the required data elements needed to report your facility, point, nonpoint, onroad, nonroad and event inventories. Use of the Bridge Tool, the procedure for submitting data using the Web Client, and an overview of the EIS Gateway will also be covered. We will also cover any changes that will be applicable to the 2011 inventory effort. Intended audience - State/Local Agencies, Tribes, Contractors

Course Title: An Introduction to Using MOVES at the National and County Levels

Instructor: Gary Dolce, Chris Dresser and Trish Koman, US EPA Office of Transportation and Air Quality

Time: 8:30am – 5:00pm

Course Description:

MOVES2010 is EPA's current approved model for estimating air pollution emissions from on-road vehicles for regulatory purposes. This course will provide a general introduction to using of MOVES at the national level and as well as a more detailed look to using MOVES at the county level, as required for SIPs and regional conformity analyses. It will include extensive hands-on training exercises including creation of a Run Specification file and use of the County Data Manager to input local data. This course is an updated one-day version of the 2-day course EPA and FHWA staff has been giving since the release of MOVES2010. It reflects changes in the latest version of MOVES (MOVES2010b).

PARTICIPANTS MUST BRING THEIR OWN LAPTOP COMPUTERS WITH THE LATEST VERSION OF MOVES2010 AND THE MOVES2010 DATABASE ALREADY INSTALLED AND TESTED PRIOR TO THE BEGINNING OF THE COURSE.

Course trainers will not have time to help with installations of MOVES2010 during the course. Participants should make sure that their installation of MOVES2010 is operational before they arrive at the course. MOVES2010 and associated documents are available at <http://www.epa.gov/otaq/models/moves/index.htm>.

Users should also have Microsoft Excel or other spreadsheet software capable of opening Excel files on their laptops.

This is an introductory course and primarily aimed at students who have not previously taken a hands-on MOVES course and who do have extensive experience with MOVES. **Class size will be limited to 40 students with laptop computers.** Organizations should limit the number of students sent to allow space for the maximum number of individual organizations to attend.

Course Title: Control Strategy Tool (CoST) for States/Local/Tribes

Instructors: David Misenheimer and Alison Eyth, US EPA

Time: 8:30am – 5:00pm

Background:

EPA developed the Control Strategy Tool (CoST) to allow users to estimate the emission reductions and costs associated with future-year control strategies, and then to generate emission inventories with the control strategies applied. CoST tracks information about control measures, their costs, and the types of emissions sources to which they apply, including point, nonpoint, onroad, and nonroad mobile sources. EPA developed CoST primarily to support agency Regulatory Impact Analyses (RIAs) for National Ambient Air Quality Standards (NAAQS). However, EPA recognizes that this tool may also be useful to State/Local/Tribal air management personnel responsible for preparing control strategies for State Implementation Plans.

Course Description:

This hands-on course will introduce participants to CoST. The training will cover:

- Managing, viewing, and editing control measures
- Creating, editing, and reviewing the results of control strategies to see the levels of cost and emissions reductions that would be achieved
- Limiting a control strategy to a specified geographic region
- Setting control strategy constraints/limits

PARTICIPANTS MUST BRING THEIR OWN LAPTOP COMPUTERS WITH THE LATEST VERSION OF CoST AND ASSOCIATED DATABASES ALREADY INSTALLED AND TESTED PRIOR TO THE BEGINNING OF THE COURSE.

Course trainers will not have time to help with installations of CoST during the course. Participants should make sure that their installation of CoST is operational before they arrive at the course.

CoST and associated documents and databases will be made available to course participants at least 3 months prior to the training course.

Users should also have Microsoft Excel or other spreadsheet software capable of opening Excel files on their laptops. Course participants should also be familiar with basic terminology and concepts concerning emission inventories and control strategy development.

Class size will be limited to 15 students.

Course Title: Utilizing Local Fire Information to Develop a National Emissions Inventory for Fires through Smartfire 2

Instructor: Sim Larkin, USFS and Sean Raffuse, Sonomatech

Time: 8:30am – 12:00pm

Course Description:

Wildland fire information is available through a wide variety of sources – satellite systems that detect fires and burn scars, and ground reporting systems at the national, state, and local levels that report wildfires and/or prescribed burns. The new SmartFire 2 system has been designed to utilize the available data in order to enable the creation of inventories for wildland fire that leverage multiple sources and take advantage of the unique capabilities of each system.

This course is for anyone interested in how SmartFire 2 works in general, how it associates and reconciles disparate data streams, and the specific requirements for submitting data to SmartFire 2 for incorporation into the next NEI. The course is divided into two parts – the first part (~ 2 hours) will be for anyone interested in the system; the second (~ 2 hours) will be aimed at data submitters and how to submit data.

If possible, participants are encouraged to look at the preliminary 2011 NEI wildland fire numbers before attending. Data submitters attending Part 2 are encouraged to send the organizers a sample dataset from your state / region for discussion.

Topics covered will include:

Part 1: For everyone:

- The SmartFire 2 system
- How SmartFire2 and the BlueSky Framework can be used to create an emissions inventory
- What was done for the 2008 NEI for wildland fire version 2
- Types of data usable by SmartFire 2
- Association algorithms used by SmartFire 2
- Reconciliation options available in SmartFire 2
- Fuels, consumption, and emissions options in BlueSky
- Known uncertainties in wildland fire emissions
- Current development efforts
- Documentation and where to access / obtain SmartFire 2 and BlueSky

Part 2: For data submitters:

- Formats that SmartFire 2 can read
- How to submit data
- What will happen to submitted data
- Will this data work? Discussion using data provided by attendees
- Q&A for data submitters

Class size will be limited to 40 students and internet connection required for the instructor.

Course Title: US Greenhouse Gas Emissions Inventory and Greenhouse Gas Reporting Program Data Publication Tool

Instructor: Leif Hockstad and Brian Cook, US EPA

Time: 1:00pm - 5:00PM

Course Description:

EPA publishes both the annual national level Inventory of U.S. Greenhouse Gas Emissions and Sinks, and greenhouse gas emissions data collected through the Greenhouse Gas Reporting Program through an online data publication tool. The Inventory of U.S. Greenhouse Gas Emissions and Sinks is a comprehensive top-down assessment of national GHG emissions, and presents emissions across multiple years starting in 1990. EPA uses national energy data, data on national agricultural activities, and other national statistics to provide a comprehensive accounting of total GHG emissions for all man-made sources in the United States. The GHG Reporting Program collects bottom-up data from individual facilities, mainly above certain emissions thresholds. Through this program and its coverage, EPA provides specific facility and supplier-level data for approximately 85-90% of total U.S. GHG emissions. EPA collected data from facilities through the GHGRP for the first time in 2010, and has published emissions data from all facilities covered by the GHGRP through an online data publication tool.

This course is for anyone interested in these complimentary greenhouse gas emissions data sets published by EPA. The course is divided into two parts – the first part (~ 1.5 hours) will focus on the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010, the most recent annual report on national level greenhouse gas emissions, and its calculation methodologies and time series trends information. The second (~ 2.5 hours) will focus on the Greenhouse Gas Reporting Program's data publication tool, the greenhouse gas emissions data presented in it, and how to use the program's data publication tool.

If possible, participants are encouraged to look at the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010 (<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>) and the data publication tool for the Greenhouse Gas Reporting Program (<http://ghgdata.epa.gov/ghgp/main.do>).

Topics covered will include:

Part 1: The Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010

- History, purpose, and scope of this report
- Coverage of sources and sectors in the U.S.
- Data sets and methodologies used in calculating national greenhouse gas emissions
- Recent trends and long-term trend drivers
- Updates expected in future reports
- Q&A

Part 2: Greenhouse Gas Reporting Program Greenhouse Gas Data from Large Facilities – Data Publication Tool

- Brief introduction to the Greenhouse Gas Reporting Program (GHGRP)
- Basic features of the GHGRP Data Publication Tool
- How to view data in various formats, such as maps and graphs for individual facilities or groups of facilities
- How to search the data set, such as for individual facilities by name or location
- How to filter the data set, such as by state or county, and by industry sectors and sub-sectors
- Q&A

Poster Session and Exhibitors Reception

Tuesday - August 14, 2012

6:00 - 8:00 pm

1. "Emission Factors for Light and Heavy-Duty Vehicles Based on Road Tunnel Measurements in Sao Paulo, Brazil", M. de Fatima Andrade, A. Fornaro, R. Maura de Miranda, R. Yuri Ynoue and E. Dias de Freitas, Atmospheric Sciences Department Instituto of Astronomy, Geophysics and Atmospheric Sciences University of Sao Paulo, Brazil
2. "Emission Inventories Adaptation on SMOKE with different Projection systems for Amazon Region in Brazil", B. D'Aiuto da Cunha, Department of Civil Engineering, Alberto Luiz Coimbra Institute Graduate School and Research in Engineering, PEC-COPPE, Rio de Janeiro, Brazil
3. "How to use eGRID for Carbon Footprinting Electricity Purchases in Greenhouse Gas Emission Inventories", A. Diem, US EPA; S. Rothschild and C. Quiroz, TranSystems | E. H. Pechan
4. "Development of Geospatial Data and Tools for Wildland Fire Emissions Modeling for the US", N. French, J. McCarty, T. Erickson, B. Koziol and M. Billmire, Michigan Tech Research Institute, Ann Arbor MI; D. McKenzie, USDA Forest Service, Pacific Northwest Research Station, Seattle, WA
5. "The Indirect By-Product Effect of the Introduction of Biofuels", G. Barrow and D. Zilberman, UC Berkeley; G. Hochman, Rutgers University
6. "Development of MOVES-Mexico", H. Yang and W. Li, UTEP; G. Ayala, International Communities Research Center; G. Pinal, El Paso MPO; V. Valenzuela, TCEQ, Region 6
7. "Emissions of Radical Precursors and Related Species from Traffic in Houston, Texas – Implications for Air Quality Modeling", G. Lubertino, Houston-Galveston Area Counsel; B. Rappenglueck, S. Alvarez, J. Golovko, B. Czader and L. Ackermann, University of Houston
8. "Derivation of a New Smoke Emissions Inventory using Remote Sensing and its Implications for Near Real-time Air Quality Applications", L. Ellison, (Science Systems and Applications, Inc) and C. Ichoku, NASA Goddard Space Flight Center
9. "A New Mobile Laboratory for Greenhouse Gas Source Attribution Studies", R. P. Bamha, H. A. Michelsen and P. E. Schrader, Sandia National Laboratories, Livermore, CA; F. M. Helsel and M. D. Ivey, Sandia National Laboratories, Livermore, NM
10. "Improving the Spatial Allocation of Construction Emissions in Canada", M. Sassi and L. Boucher, Air Quality Modeling Applications Section, Meteorological Service of Canada; A. Leroux, Environmental Emergency Response Section, Meteorological Service of Canada
11. "Integrating Source and Receptor Models for the Purpose of Emissions Inventory Improvement – Application to Residential Wood Combustion in the Southeast", S. Napelenok, R. Vedantham, G. Pouliot and P. Bhave, US EPA
12. "Bureau of Ocean Energy Management (BOEM) Gulf of Mexico Emissions Inventories", D. Wilson, R. Oommen, S. Enoch and R. Billings, Eastern Research Group; H. Ensz, Bureau of Ocean Energy Management
13. "The Julich Interoperable Web Services for Modeling and Emission Data Sets", M. G. Schultz, M. Decker, Sebastian Luhrs, O. Stein and S. Schroder, Research Centre Julich
14. "Effect of Location Coordination on RTR Risk Results, (aka, Where's Waldo's Stack and Fugitive Releases)", A. Pope, B. Stitt, M. Stewart and C. Boswell, US EPA; S. Enoch, Eastern Research Group
15. "Risk and Technology Review Status Update", S. Enoch, D. Wilson, R. M. Weyl, and R. Oommen, Eastern Research Group; A. Pope, US EPA

16. "CAROL: Making the Great Lakes Regional Toxic Air Emissions Data Available On-Line", X. Luo, IGRE, Eastern Michigan University, A. Soehl and G. Wang, Great lakes Commission, C. Yi Wu, Minnesota Pollution Control Agency
17. "Emissions Impacts from Using B20 Fuel in the Current Transit Bus Fleet", M. Thornton, P. Sindler, M. Lammert and R. McCormick, National Renewable Energy Laboratory, CO
18. "Global Health Roadmap – Quantifying Health Impacts from Transportation Policies", S. Chambliss, C. Facanha and R. Minjares, International Council on Clean Transportation
19. "Sulfur Dioxide and Primary Carbonaceous Aerosol Emissions from China and India during 1996-2010", Z. Lu and D. G. Streets, Decision and Information Sciences Division, IL; Q. Zhang, Center for Earth System Science, China
20. "Comparing Two National Datasets of CO₂ Emissions for US Powerplants", J. Huang and K. Gurney, Arizona State University, School of Life Sciences
21. "Development of a Grid-Based Emission Inventory and a Source-Receptor Model for Dhaka City", T. Afrin, M. Ashraf Ali, S. M. Rahman and Z. Wadud, Department of Civil Engineering, Bangladesh University of Engineering and Technology, Bangladesh
22. "Evaluation of a US National Emissions Inventory of PM_{2.5} Species", A. Reff, P. Bhawe, G. Pouliot, A. Zubrow and V. Rao, US EPA
23. "Utilizing Nonparametric Wind Regression to Determine Potential Source Contributions in Gary, IN", M. Rizzo, US EPA Region 5; V. Rao, US EPA
24. "Sub-canopy Transport and Dispersion of Smoke: A Unique Observation and Model Evaluation", R. Mickler, Alion Science and Technology; T. Strand, Scion Research; C. Clements, San Jose State University and B. Lamb, Washington State University
25. "Assessing Precision and Accuracy of Atmospheric Emission Inventories", J. I. Huertas, M. E. Huertas and J. Diaz, Automotive Engineering Research Center –CIMA, Toluca, Mexico
26. "Measuring and Modeling Fugitive Emissions from Natural Gas Development in the Haynesville Shale", R. J. Caruso and M. L. Bell, Yale University, New Haven CT
27. "Characterization of Mega-City CO₂ Emissions at High Spatio-Temporal Resolution: Application to Los Angeles", A. Eldering, R. Duren, S. Sander and C. Miller, Jet Propulsion Laboratory, California Institute of Technology, CA; K. Gurney, Y. Song and I. Razlivanov, School of Life Sciences, Arizona State University, AZ
28. "Toxics Release Inventory (TRI), and Its Use in the 2008 National Emission Inventory", M. Strum, L. Tooly and V. Rao, US EPA
29. "2008 National Emission Inventory", R. Ryan, M. Strum, R. Huntley, L. Driver, V. Rao and S. Dombrowski, US EPA
30. "Reducing Transportation Related Emissions through Connected Vehicle Technology Applications: A Benefit Assessment", E. Pindilli, V. Adams and J. Glassman, Booz Allen Hamilton
31. "What's New in SPECIATE 4.3", F. Divita and Y. Hsu, TranSystems | Pechan
32. "Freight from Space: Evaluating Freight Activity and Emissions Trends from Satellite Data", E. Bickford, T. Holloway and J. Oberman, University of Wisconsin-Madison and M. Janssen, Lake Michigan Air Directors Consortium

Exhibitors

TranSystems Corporation – TranSystems, a private company incorporated in 1966, is comprised of more than 1,000 engineering and consulting professional in 43 offices throughout the United States and headquarters in Kansas City, MO. TranSystems provides comprehensive services in all transportation modes. TranSystems acquired E. H. Pechan & Associates, Inc in December 2010. Pechan has a 30-year history in providing comprehensive emission inventory support services to EPA, Regional Planning Organizations, States and Local agencies. This includes criteria air pollutant, hazardous air pollutant and greenhouse gas emission inventory development. TranSystems' Climate Change Services Group provides third party greenhouse gas verification services to organizations.

Trinity Consultants/T3 – For over 30 years, Trinity Consultants has assisted industrial facilities with regulatory compliance and environmental management issues. T3, a division of Trinity Consultants, helps business operate more efficiently and cost-effectively, while improving environmental, health, and safety (EH&S) performance. The unique mix of extensive experience in EH&S consulting, software development, system support and training allows T3 to harness the power of technology to help streamline your EH&S information management practices.

T3's wide-range of solutions include the handheld Pocket Solutions™ for collecting and managing field EH&S and maintenance data; custom compliance solutions for specific recordkeeping and reporting requirements; and implementation of third-party multi-media enterprise software. We work closely with you to determine the suitable approach to meet your needs and implement the solution quickly and intelligently.

T3 is committed in every way to help you achieve the highest levels of business performance and EH&S regulatory compliance.

US EPA - Emission Inventory & Analysis Group (EIAG) – The Emission Inventory and Analysis Group is responsible for developing the National emissions Inventory (NEI), a national database of air emissions information. NEI is a compilation of data comprising of input from numerous state and local air agencies, tribal nations, industry, and other federal databases. The NEI database contains information on stationary and mobile sources that emit criteria air pollutants and precursors, as well as hazardous air pollutants. NEI data are used for air dispersion modeling; tracking emission trends and developing risk assessments, regulations and regional pollution control strategies. Staff will be available to answer your questions on the Emission Inventory System (EIS), the Emissions Modeling Framework (EMF), mobile models, the risk Technology Rule, the air Emissions Reporting Rule (AERR) and analysis of the National Emission Inventory data.

Windsor Solutions, Inc – Windsor Solutions, Inc. is information systems consulting firm headquartered in Portland, Oregon. Windsor was founded in 1998 to specialize in the provision of environmental information systems to federal, state, local, and tribal government organizations. Windsor has an exceptional national reputation for the delivery of high quality environmental information system solutions.

The State and Local Emissions Inventory System (SLEIS) allows permitted facilities to submit point source emissions inventory data and related meta-data to state and local agencies via a Web-based, CROMERR-compliant reporting system. SLEIS positions organizations to better manage and review collected data, including the quality assurance of emissions inventory data submitted by regulated entities. SLEIS also includes an Exchange Network interface to manage the generation and submission of XML files to EPA's Emissions Inventory System (EIS).

SLEIS enables the regulated community to meet reporting obligations by providing a secure, intuitive, and streamlined interface for the submission of facility inventory and emissions data and meta-data. SLEIS also brings much greater efficiency to the collection, processing, analysis, and quality assurance of emissions inventories for the consortium partners, while allowing each member of the consortium with the ability to configure the system to meet their own unique needs.

Tuesday, August 14, 2012

Session 1: EI Preparation for Modeling

Chairs: Alison Eyth, US EPA
Wayne Boulton, RWDI

- 1:00 “2007/2008 Emissions Modeling Platform Components and New Tools”, R. Mason, A. Eyth and A. Zubrow, US EPA; Z. Adelman, Institute for the Environment, UNC
- 1:25 “Preparation of Oil and Gas Emissions Inventories for Use in Photochemical Grid Modeling”, E. K. Pollard and S. B. Reid, Sonoma Technology, Inc; J. Reed and C. Taylor, AECOM and B. Bohlmann, Wyoming Department of Environmental Quality
- 1:50 “Development of a Crop Residue Burning Emission Inventory for Air Quality Modeling”, G. Pouliot, US EPA; J. McCarty, Michigan Tech Research institute; and A. Soja, Institute of Aerospace NASA Langley Research Center
- 2:15 “A New Interface to Model Global Commercial Aircraft Emissions from the FAA Aviation Environmental Design Tool (AEDT) in Air Quality Models”, B.H. Baek, S. Arunachalam, M. Omary and F. Binkowski, Institute for the Environment, UNC, Chapel Hill, NC; G. Fleming, Volpe National Transportation Systems Center, US DOT, Cambridge, MA
- 2:40 **BREAK**
- 3:10 “Model Sensitivity to MACC anthropogenic and Biogenic Emissions: Global Simulations and Evaluation for Reactive Gases”, O. Stein and M. G. Schultz, Research Centre Jülich; I. Bouarar and L’Atmos, UPMC Paris; H. Clark, Météo France, CNRM, Toulouse ; E. Katragkou, Aristotle University of Thessaloniki; J. Leitao, IUP, University Bremen and A. Heil, Research Centre Jülich
- 3:35 “Revisiting Emission Projections – What Can We Learn from Predicting Future Developments”? S.Reis, Centre for Ecology and Hydrology; V. Vestreng, Climate and Pollution Agency, Norway
- 4:00 “Improvements to SMOKE Processing of Canadian On-Road Mobile Emissions”, J. Zhang, Q. Zheng, M. Moran, M. Gordon, J. Liggo and P. Makar, Air Quality Research Division, Environment Canada; B. Taylor, Pollutant Inventories and Reporting Division, Environment Canada
- 4:25 “Temporal and Spatial Detail in Mobile Source Emission Inventories for Regional Air Quality Modeling”, A. DenBleyker and C. E. Lindhjem ENVIRON International Corporation; C. Loomis, Alpine Geophysics LLC and H. Dilley, Denver Regional Air Quality Council

Session 2: Biomass Burning

Chairs: Amber Soja, NASA
Sim Larkin, USFS
Jessica McCarty, MTU

- 1:00 “The Version 4 Global Fire Emissions Database”, L. Giglio, UMD and J. T. Randerson UC Irvine
- 1:25 “Development of the Version 2 2008 Wildland Fire Emission Inventory,” S. Raffuse and Y. Du, Sonoma Technology, Inc and N. Larkin, USDA Forest Service
- 1:50 “Comparative Fire Emissions Analysis for the DEASCO3 Project and the US EPA 2008 NEI”, T. Moore, Western Governor’s Association; M. E. Mavko and D. Randall, Air Sciences, Inc
- 2:15 “Review of Emissions Inventories for Wildland Fires in Georgia”, D. Tian and T. Zeng; Georgia Department of Natural Resources, Environmental Protection Division and School of Earth and Atmospheric Sciences, Georgia Institute of Technology; J. Boylan, ; Georgia Department of Natural Resources, Environmental Protection Division
- 2:40 **BREAK**

- 3:10 “Using Satellite Data to Quantify Cropland Burning and Related Emissions in the contiguous United States: Lessons Learned”, J. McCarty, Michigan Tech Research Institute; G. Pouliot and J. Szykman, US EPA; S. Raffuse, Sonoma Technology, Inc; M. Ruminski, NOAA/NESDIS and A. Soja, NIA/NASA
- 3:35 “Mapping Prescribed Burning in the Flint Hills of Kansas and Oklahoma”, D. Goodin and R. Mohler, Kansas State University
- 4:00 “A Wildland Fire Emission Inventory: Western United States Emission Estimates and an Evaluation of Uncertainty at Scales Relevant to Air Quality Modeling”, S. Urbanski, W. M. Hao, S. Baker, US Forest Service, RMRS
- 4:25 “Emission Factors for CO₂, CO and Main Hydrocarbon Gases, and Biomass Consumption in an Amazonian Forest Clearing Fire”, T. G. Soares Neto, V. O. Saito, E. Anselmo, F. Ferrari Dias and J. Carlos dos Santos. Instituto Nacional de Pesquisas Espaciais. Laboratório Associado de Combustão e Propulsão, Cachoeira Paulista, SP; J. Andrade de Carvalho Jr and E. Bastos de Amorim, Universidade Estadual Paulista- UNESP. Departamento de Energia, Guaratinguetá, SP and M. A. Martins Costa, Universidade Estadual Paulista- UNESP. Departamento de Engenharia Industrial Madeireira, Itapeva, SP

Session 3: Greenhouse Gases

**Chairs: Graciela Lubertino,
H-G Area Council
Beth Hatter, SRA**

- 1:00 “Understanding the EPA’s Inventory of U.S. Greenhouse Gas Emissions and Sinks and Mandatory GHG Reporting Program for Landfills: Methodologies, Uncertainties, Improvements and Deferrals”, K. Bronstein, RTI International and R. Schmeltz US EPA
- 1:25 “Iowa 2010 Greenhouse Gas Inventory – Challenges and Lessons Learned”, M. S. Stein, Iowa Department of Natural Resources
- 1:50 “How to use eGRID for Carbon Footprinting Electricity Purchases in Greenhouse Gas Emission Inventories”, A. Diem, US EPA; S. S. Rothschild and C. Quiroz, TranSystems | E. H. Pechan
- 2:15 “The Indirect By-Product Effect of the Introduction of Biofuels”, G. Barrow and D. Zilberman, UC Berkeley and G. Hochman, Rutgers University
- 2:40 **BREAK**
- 3:10 “Understanding Greenhouse Gas Emissions from Unconventional Natural Gas Production”, K. Ritter and A. Emmert, American Petroleum Institute; S. Banaszak, America’s Natural Gas Alliance; M. Lev-On, The LEVON Group, LLC and T. Shires, URS Corporation
- 3:35 “Vulcan: National Scale High Resolution Quantification of Fossil Fuel CO₂ Emissions”, K. Gurney I. Razlivanov and Y. Song, Arizona State University, School of Life Sciences; D. Mendoza, V. Chandrasekaran and S. Geethakuma, Purdue University, Department of Earth and Atmospheric Sciences; Y. Zhou, joint Global Change Research Institute, MD
- 4:00 “Hestia: Urban Scale High Resolution Quantification of Fossil Fuel CO₂ Emissions”, K. Gurney, I. Razlivanov, Y. Song and J. Huang, School of Life Sciences, Arizona State University, AZ; Y. Zhou, Joint Global Change Research Institute, MD; J. Turnbull, C. Sweeney, A. Karion, S. Lehman and P. Tans, NOAA/ESRL, CO; University of Colorado, CO; Rafter Radiocarbon Laboratory, New Zealand; K. Davis, N. Miles, S. Richardson and T. Lauvaux, Pennsylvania State University, PA; P. Shepson and O. Cambaliza, Purdue University, IN; A. Eldering, R. Duren, S. Sander and C. Miller, Jet Propulsion Laboratory, California Institute of Technology, CA
- 4:25 “U.S. Onroad Transportation CO₂ Emissions Analysis Comparing Highly Resolved CO₂ Emissions and a National Average Approach: Mitigation Options and Uncertainty reductions”, D. Mendoza, Department of Earth and Atmospheric Sciences, Purdue University and K. Gurney, School of Life Sciences, Arizona State University

Wednesday, August 15, 2012

Session 4: Tools Leveraging Technology

Chairs: Sally Dombrowski, US EPA
Madeleine Strum, US EPA

- 8:30 “SLEIS – A Shared Emissions Inventory Management Tool”, D. Lyons, Arkansas Department of Environmental Quality; B. Smith, Windsor Solutions, Inc
- 8:55 “Experiences Conducting Port Emission Inventories in Canada”, J. Lindner and B. McEwen, SNC-Lavalin Environment
- 9:20 “Toxics Release Inventory Data and Tools”, S. Witkin, US EPA
- 9:45 “New Features for the Emissions Inventory system (EIS)”, J. Miller, R. Ryan and S. Dombrowski, US EPA
- 10:10 **BREAK**
- 10:40 “Integrating GHGs into NCDAQ’s Air Emissions Reporting Online (AERO) as a tool for State Planning”, T. Manning, S. Masemore and P. Hemmer, NCDENR, Division of Air Quality
- 11:05 “Adapting Condition-Based Maintenance Technologies for Vessel GHG Emissions Monitoring and Inventory Development”, D. Neef, Managing Director, DNA Maritime LLC
- 11:30 “SANGEA 4.0 – Facilitating Standardization of Greenhouse Gas Emissions Quantification for the Petroleum Industry”, H.-M Sung, Trinity Consultants, Inc
- 11:55 **LUNCH**

Session 5: Stationary/Nonpoint/Area Sources

Chairs: Lynn Barnes, SC DHEC
Roy Huntley, US EPA

- 8:30 “A Detailed Approach for Improving Continuous Emissions Monitoring Data for Regulatory Air Quality Modeling”, Z. Adelman, M. Omary, Q. He, J. Zhao and D. Yang, Institute for the Environment, UNC, NC; J. Boylan, Environmental Protection Division, Atlanta, GA
- 8:55 “Improvement of Residential Wood Combustion Emissions in Southeastern US”, B-Uk Kim, GA Environmental Protection Division; T. Anderson, Alabama Department of Environmental Management; J. V. Bruggen and A. Bolman, Corporation
- 9:20 “Standardized Emissions Inventory Methodology for Open Pit Mining Areas”, J. I. Huertas, D. A. Camacho and M. E. Huertas, Automotive Engineering Research Center – CIMA, Toluca, Mexico
- 9:45 “A Procedure for Estimating Nonpoint Source Air Pollutant Emissions from Industrial, Commercial and Institutional Fuel Combustion”, A. Bollman, J. G. Dorn and F. Divita, Jr., TranSystemss | E.H. Pechan and R. Huntley, US EPA
- 10:10 **BREAK**
- 10:40 “EPA’s PM Augmentation Procedure”, R. Huntley, US EPA; J. Dorn and S. Colodner, TranSystems | E.H. Pechan,
- 11:05 “Emission Trends from Thermal Power Plants in India”, M. Mittal, University of South Florida
- 11:30 “Fugitive Emissions from a Dry Coal Fly Ash Storage Pile”, S. F. Mueller, Q. Mao, R. Valente and J. Mallard, Tennessee Valley Authority and S. L. Shaw, Electric Power Research Institute
- 11:55 **LUNCH**

Session 6: Oil & Gas Exploration and Production Emissions

**Chairs: Tom Moore, WRAP
Regi Oommen, ERG**

- 8:30 “Condensate Tank Emissions”, D. Wells, Colorado APCD
- 8:55 “Estimation of Emissions from Oil and Natural Gas Operations in Northeastern Colorado”, G. Pétron, G. J. Frost, B. R. Miller, J. Kofler, A. Karion and C. Swenney, Cooperative Institute for Research in Environmental Sciences, University of Colorado; S. A. Montzka, A. E. Andrews, E. Dlugokencky, M. Trainer and P. Tans, National Oceanic & Atmospheric Administration, Earth System Research Laboratory, Global Monitoring Division
- 9:20 “Updates on Emissions Inventory Development of Oil and Gas Activities in the Rocky Mountain States”, A. Bar-Ilan, J. Grant, R. Parikh and R. Morris, ENVIRON International Corporation, Novato, CA; D. Henderer, Buys & Associates, Inc., Littleton, CO; K. Sgamma and L. Gribovicz, Western Energy Alliance, Denver, CO
- 9:45 “Development of Oil and Gas Production Site and Midstream Facility Emissions Inventories in Wyoming”, B. R. Bohlmann, B. R. Hall, and S. W. Faber, Wyoming Department of Environmental Quality
- 10:10 **BREAK**
- 10:40 “Emissions Inventory of Natural Gas Production in the Fayetteville Shale”, D. Lyon, Arkansas Department of Environmental Quality
- 11:05 “Fort Worth Natural Gas Air Quality Study”, M. Pring, R. Oommen and J. Wilhelmi, Eastern Research Group, NC
- 11:30 **OIL AND GAS PANEL**
- 11:55 **LUNCH**

Session 7: GIS Innovative Methods Remote Sensing

**Chairs: Steve Reid, Sonomatech
BH, Baek, UNC**

- 1:00 “Advancing Emissions Quantification Techniques through the NASA ACAST Program”, D. Streets, Argonne National Laboratory, IL
- 1:25 “Predicators of Measurements Accuracy in the Remote Sensing of CO₂ Emissions”, D. Winters, RTI International, RTP, NC
- 1:50 “Evaluating NO_x Emissions Using Satellite Observations”, M. Trainer and T. Ryerson, OAA/ESRL/CSD, Boulder Colorado; G. Frost, Si-W. Kim, J. Brioude, E. Yu Hsie, W. Angevine, J. Peischl and F. Fehsenfeld, NOAA/ESRL/CSD, Boulder and University of Colorado/CIRE, Boulder; S.-H. Lee, Alamos National Laboratory, Los Alamos, New Mexico; C. Grainer, University of Colorado/CIRES, Boulder, Université Pierre et Marie Curie, CNRS/INSU, LATMOS-IPSL Paris, France and Max Planck Institute for Meteorology, Hamburg, Germany; A. Heckel, A. Hilboll, A. Richter, J. Burrows, IEP/IRS, University of Bremen, Germany; J. Gleason, Goddard Space Flight Center, NASA, Maryland and F. Boersma, Royal Netherlands Meteorological Institute (KNMI), The Netherlands
- 2:15 “Why Emission Factors Don’t work at refineries and what to do about it”, A. Cuclis, Houston Advanced Research Center
- 2:40 **BREAK**
- 3:10 “Continuous GHG Monitoring at Local to Statewide Scales”, W. Callahan, E. Novakovskaia and C. Sloop, Earth Networks, Inc

- 3:35 “Development of a Fine-Scale On-Road Mobile Source Emission Inventory for the San Francisco Bay Area”, Y. Du and S. B. Reid Sonoma Technology, Inc. and P. T. Martien and V. Lau, Bay Area Air Quality Management District (BAAQMD)
- 4:00 “Biomass Burning Plume Injection Height Estimates using CALIOP, MODIS and the NASA Langley Trajectory Model”, A. Soja, National Institute of Aerospace, NASA Langley Research Center; D. Fairlie, NASA LaRC; D. Westberg, Science Systems and Applications Incorporated; G. Pouliot and J. Szykman, US EPA
- 4:25 “An Alternative Technique to Estimate Road Traffic Emission Factors:”, L. C. Belalcazar, Department of Chemical and Environmental Engineering, Bogota and A. Clappier, Laboratoire Image Ville Environment, France

Session 8: Mobile Sources

**Chairs: Jeremy Heiken, Sierra Research
Chris Dresser, US EPA**

- 1:00 “Emissions of Radical Precursors and Related Species from Traffic in Houston, Texas – Implications for Air Quality Modeling”, B. Rappenglueck, S. Alvarez, J. Golovko, B. Czader and L. Ackerman, University of Houston; G. Lubertino, Houston-Galveston Area Council
- 1:25 “Instantaneous Vehicle Consumption and Emissions using OBD Data and Emission Models”, A. Alessandrini, F. Filippi and F. Ortenzi; CTL Centre for Transport and Logistics, Rome
- 1:50 “Global Health Roadmap – Quantifying Health Impacts from Transportation Policies”, S. Chambliss, C. Facanha and R. Minjares, International Council on Clean Transportation
- 2:15 “Comparison of MOVES and SMOKE-MOVES”, A. Zubrow and A. Eyth, US EPA; H. Michaels and D. Brzezinski, US EPA OTAQ; C. Allen, CSC and B. H. Baek, Institute for the Environment, UNC Chapel Hill, NC
- 2:40 **BREAK**
- 3:10 “Moving MOVES – A Discussion on the Challenges of Sharing MOVES Output Data”, Z. Adelman, M. Omary and B. H. Baek, Institute for the Environment, University of North Carolina, Chapel Hill, NC; J.-S. Lin and K. Stumpf, Air Division, Virginia Department of Environmental Quality, Richmond, VA; J. G. Wilkinson, Alpine Geophysics, LLC, Eugene, OR and E. Zalewsky, New York Department of Environmental Conservation, Albany, NY
- 3:35 “Using the Cloud to do Large Numbers of MOVES Runs”, H. Michaels, US EPA OTAQ, MI; W. Faler, Fluid and Reason, LLC and B. Aikman, US EPA
- 4:00 “MOVES International Model Development”, E. Glover, US EPA and S. Kishan, Eastern Research Group
- 4:25 “Development of MOVES-Mexico”, H. Yang and W. W. Li, UTEP; G. Ayala, International Communities Research Center; G. Pinal, El Paso MPO and V. Valenzuela, TCEQ, Region 6

Session 9: Global/International Issues

Chairs: Zac Adelman, UNC
Rebecca Tooly, US EPA

- 1:00 “Anthropogenic Emissions at the Global and Regional Scale during the Past Three Decades”, C. Granier, NOAA/ESRL/CSD and University of Colorado/CIRES, CO, Universite Pierre et Marie Curie, CNRS/INSU LATMOS-IPSL, France; Max Planck Institute for Meteorology, Germany; A. D’Angiola and K. Zemakova, Universite Pierre et Marie Curie, CNRS/INSU LATMOS-IPSL, France; H. D. van der Gon, TNO, Utrecht, the Netherlands; G. Frost, NOAA/ESRL/CSD and University of Colorado/CIRES, CO; G. Janssens-Maenhout, Joint Research Center, Ispra, Italy; Z. Klimont, IIASA, Laxenburg, Austria; J-F Lamarque, NCAR, Boulder, CO; A. Mieville, Laboratoire d’Aerologie, Toulouse, France and D. van Vuuren, Netherlands Environmental Assessment Agency, Bilthoven, the Netherlands
- 1:25 “Addressing Science and Policy Needs with Community Emissions Efforts”, G. Frost, NOAA/ESRL/CSD and University of Colorado/CIRES, CO; C. Granier, NOAA/ESRL/CSD and University of Colorado/CIRES, CO, Universite Pierre et Marie Curie, CNRS/INSU LATMOS-IPSL, France; Max Planck Institute for Meteorology, Germany; L. Tarrason, Norwegian Institute for Air Research (NILU), Norway; P. Middleton, Panorama Pathways, Boulder, CO
- 1:50 “Revealing the Costs of Air Pollution from Industrial Facilities in Europe”, M. Adams, European Environment Agency; M. Holland, Ecometrics Research and Consulting EMRC; A. Wagner, AEA Technology and J. Spadaro, SERC
- 2:15 “Carbon Fluxes and Greenhouse Gas Emissions from Wetland Wildland Fires in the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands”, R. Mickler, Alion Science and Technology; T. Strand, Scion Research; N. French, Michigan Technology University and S. Page, University of Leicester
- 2:40 **BREAK**
- 3:10 “Fire Activity in Northern Eurasia from 2002 to 2010 and its Contribution to Arctic Black Carbon”, W. M. Hao, A. Petkov, B. Nordgren, R. E. Corley and S. P. Urbanski, US Forest Service, RMRS Fire Sciences Laboratory, MT
- 3:35 “Sulfur Dioxide and Primary Carbonaceous Aerosol Emissions from China and India during 1996-2010”, Z. Lu and D. G. Streets, Decision and Information Sciences Division, Argonne National Laboratory, Argonne, IL and Q. Zhang, Center for Earth System Science, Tsinghua University, Beijing, China
- 4:00 “The Effectiveness of Mitigation Policies on Reducing Global PM Emissions from On-Road Vehicles”, F. Yan, E. Winijkui, T. C. Bond, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign and D. G. Streets, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Decision and Information Sciences Division, Argonne National Laboratory, IL
- 4:25 “Spatial Distribution of Non-Exhaust Particulate Matter Emissions from road Traffic for the City of Bogota – Columbia”, D. Beltran, L. C. Belalcazar and N. Rojas, Department of Chemical and Environmental Engineering, National University of Colombia, Campus Bogota

Thursday, August 16, 2012

Session 1: EI Preparation for Modeling

Chairs: Alison Eyth, US EPA
Wayne Boulton, RWDI

- 8:30 “Modeling Impact of Vehicular Conversion to CNG in Dhaka City through Uncertainty Assessment”, T. Khan, Department of Engineering, Stamford University Bangladesh and Z. Wadud, Department of Civil Engineering, BUET
- 8:55 “Emission Inventories and Modeling Activities for the Development of Air Quality Plans in Madrid (Spain)”, R. Borge, J. Lumbreras, J. Perez, D. de la Paz, M. Vedrenne and E. Rodriguez, Laboratory of Environmental Modeling, Technical University Madrid
- 9:20 “Development of a Grid-Based Emission Inventory and a Source-Receptor Model for Dhaka City”, T. Afrin, Department of Civil Engineering Stamford University Bangladesh; M. A. Ali, S. M. Rahman and Z. Wadud, Department of Civil Engineering, Bangladesh University of Engineering and Technology
- 9:45 “National and Regional Emissions Projections in Europe: Methodology, Tool and Case Studies”, C. Trozzi, Techne Consulting, Roma, Italy

10:10 **BREAK**

Session 2: Biomass Burning

Chairs: Amber Soja, NASA
Sim Larkin, USFS
Jessica McCarty, MTU

- 10:40 PANEL DISCUSSION
- 11:05 PANEL DISCUSSION
- 11:30 PANEL DISCUSSION
- 11:55 PANEL DISCUSSION

Session 8: Mobile Sources

Chairs: Jeremy Heiken, Sierra
Research
Chris Dresser, US EPA

- 8:30 “Driving Style Influence on Car CO₂ Emissions”, A. Alessandrina, A. Cattivera, F. Filippi and F. Ortenzi, CTL Centre for Transport and Logistics, Sapienza University of Rome, Italy
- 8:55 “Criteria Pollutant Impacts of Mid-Level Ethanol Blends (E15 and E20)”, J. G. Heiken, A. Marcucci and J. M. Lyons, Sierra Research, Inc
- 9:20 “Regional Differences in Life-Cycle Greenhouse Gas and Criteria Air Pollutant Emissions of Light-Duty Vehicles”, H. Cai, Argonne National Laboratory
- 9:45 “Improvements to Nonroad Growth, Activity and Population Data for Modeling”, T. Koman, H. Michaels and E. Glover, US EPA OTAQ, MI
- 10:10 **BREAK**
- 10:40 “Electrifying the Off-road Sector: Emission Inventory Methods and Results”, J. Grant, L. Chan and G. Yarwood, ENVIRON International Corporation, Novato, CA and E. Knipping, Rogers and M. Alexander, Electric Power Research Institute, Palo Alto, CA

11:05 “Locomotive Emission Inventories for the United States from ERTAC Rail”, M. Bergin, GA Environmental Protection Division; M. Harrell, IL Environmental Protection Agency; M. Janssen, Lake Michigan Air Directors Consortium (LADCO)

11:30 **MOBILE SOURCES PANEL**

11:55 **LUNCH**

Session 10: Air Toxics

**Chairs: Chun Yi Wu, MNPCA
Madhu Venugopal,
Providence Eng**

8:30 “Gapfilling HAPs in the 2008 NEP”, M. Strum, US EPA

8:55 “Using the National Emission Inventory Information to Conduct Residual Risk Assessments – the Pulp and Paper Industry Experience”, K.P. Hanks, RTI International, NC; A. Crapo, NCASI Southern Regional Center, FL and J. E. Pinkerton, NCASI, RTP, NC

9:20 “Assessment of Benzo(a)pyrene Emissions in the Great lakes Region”, A. Soehl, Great Lakes Regional Air Toxic Emissions Inventory project; C. Yi Wu, Minnesota Pollution Control Agency and G. Wang, Great Lakes Commission

9:45 **AIR TOXICS DISCUSSION SESSION**

**Session 7: GIS Innovative Methods
Remote Sensing**

**Chairs: BH Baek, UNC
Alexis Zubrow, US EPA**

10:40 “Long-Term, Open-Path Emissions Monitoring at Oil and Gas Exploration and Production Sites”, R. A. Hashmonay and S. H. Ramsey, PE ENVIRON

11:05 “Source Apportionment of Tehran’s Air Pollution by Emissions Inventory”, R. Bayat, A. Torkian and M. Najafi, Tehran Municipality

11:30 “Assessing Precision and Accuracy of Atmospheric Emission Inventories”, J. L. Huertas, M. E. Huertas and J. Diaz, Automotive Engineering Research Center – CIMA, Toluca, Mexico

Registration

Conference Registration for Attendees and Exhibitors

To register for the conference, courses, and meetings, please complete the on-line registration form located on the conference registration web page at <http://www.pechan.com/epa/eic>. If you cannot access the Conference Registration webpage, please contact TranSystems | E. H. Pechan at 919-354-0385 or email at bjbauer@transystems.com. Space is on a first come, first served basis, via registration. For additional information regarding registration, please contact Kim Paylor at (919) 541-5474.

Hotel Registration

The Hyatt Regency is holding a block of guest rooms for the nights of August 12 – 15, 2012. To make your reservations, use the online reservation system, www.tamparegency.hyatt.com, on or before **July 13, 2012**, the cut-off date, to receive the room block rate of \$93.00/night plus 12.00% tax for single and double occupancy. If you have any issues using the online reservation system, please call the Hyatt at 888-421-1442. Please refer to the “EPA Emission Inventory Conference 2012” when making your reservation to obtain the Conference rate. After July 13, 2012, reservations are subject to space and rate availability.

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