STAPPA/ALAPCO/EPA

Joint Training Committee Meeting
San Diego, CA
March 1-3, 2004

Laurel Berman
Peter A. Scheff
University of Illinois at Chicago
Environmental and Occupational Health Sciences

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Key Activities

- APTI Area Training Center Since 1990
- 3 - 6 APTI Short-Courses per Year
- Developed courses in air quality data analysis and receptor modeling
- Academic Training (masters and doctoral)
- Operation of Distance Learning Network

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Key Faculty

- Peter A. Scheff, Ph.D.
  - Measurement; Source-receptor modeling; Applied statistics and analysis of environmental data.
- William Franek, Ph.D., P.E.
  - Measurement and source identification of ambient aerosols (20 + years of experience with APTI courses).
- Paul Farber, M.S., P.E.
  - Design of air pollution control systems; Monitoring of industrial emissions.

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Key Faculty

- William Mills, Ph.D..
  - Identification of the sources of chlorinated organics in the ambient environment.
- Richard A. Wadden, Ph.D.
  - Indoor air pollution; Measurement of worker exposure; Air pollution models; Control technology; Ozone episode prediction; and Mathematical modeling of aerosol systems.
- Lorraine M. Conroy, Sc.D.
  - Industrial hygiene engineering; exposure assessment.

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Key Faculty

- Serap Erdal, Ph.D.
  - Assessment of multimedia environmental exposure and environmental measurement.
- An Li, Ph.D.
  - Environmental chemistry, transport and fate of chemicals in the environment.
- Donna Kenski, Ph.D.
  - Air quality data analysis; Source-receptor modeling; Modeling.

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Short Courses Taught by UIC ATC

- Laboratory Courses
- APTI423 Air Pollution Dispersion Models-Applications (Chicago and NESCAUM)
- APTI424 Source-Receptor Modeling (Chicago, Santa Fe, and Distance Learning Network)
- APTI435 Atmospheric Sampling
- APTI450 Source Sampling for Particulate Pollutants
- APTI464 Analytical Methods for Air Quality Standards
- APTI474 Continuous Emission Monitoring

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Short Courses Taught by UIC ATC

- Classroom courses
- APTI400 Introduction to Air Toxics
  - (Chicago and Madison, WI)
- APTI400 Hazardous Air Pollutants Workshop
  - (for CenSARA in Jefferson City, MO)
- APTI413 Control of Particulate Emissions
  - (Chicago, IL, Madison, WI and Lansing, MI)
- APTI415 Control of Gaseous Emissions
  - (Chicago, IL, Madison, WI and Lansing, MI)
- APTI427 Combustion Evaluation
  - (Memphis, TN, Indianapolis, IN and Chicago, IL)
- APTI444 Air Pollution Field Enforcement
- APTI452 Principles and Practices of Air Pollution Control
- APTI470 Quality Assurance for Ambient Air Measurements
- APTI482 Sources and Control of Volatile Organic Air Pollutants
- APTI482 Sources, Regulation and Control of VOC (revised`
- APTI501 Hazardous Waste Combustion

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Short Courses Taught by UIC ATC

- Courses Developed by UIC
- APTI424 Source Receptor Modeling Workshop (Chicago and Santa Fe)
- APTI424T Introduction to Receptor Modeling (National Broadcast to 240 students on USEPA's Distance Learning Network)
- APTI Data Analysis Workshop (for SenSARA in Austin, TX)
- APTI Data Analysis Workshop (for MARAMA in Baltimore, MD)
- APTI Data Analysis for Air Toxics Workshop, Chicago
- Workshop: Uses and Abuses of Environmental Modeling, UIC Institute for Environmental Science and Policy and EPA Region 5

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Region 5 Needs Assessment

- High Priority (October, 2000)
- APTI415 Control of Gaseous Emissions
- APTI450 Source Sampling for Particulate Pollutants
- APTI482 Sources and Control of VOCs
- APTI445 Baseline Source Inspection Techniques
- APTI413 Control of Particulate Emissions
- APTI446 Inspection Procedures and Safety
- APTI444 Air Pollution Field Enforcement
- APTI474 Continuous Emissions Monitoring
- APTI427 Combustion Evaluation
- APTI345 Emission Capture and Gas Handling System Inspection

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Current Year Activities

- APTI413 Control of Particulate Emissions (February Lansing, MI and March Madison, WI)
- APTI415 Control of Gaseous Emissions (March Lansing, MI and April Madison, WI)
- APTI427 Combustion Evaluation (May, Indianapolis)
- APTI450 Source Sampling for Particulate Pollutants (September, Chicago)
- Operation of DLN site (all year)
- APTI413, 415 and 427 are in Collaboration with LADCO
- Air Pollution Data Analysis, (Requested by Thai government for Fall, 2004)

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Activities Proposed for 2005

- Three to six short-courses to be determined based on regional needs including at least one laboratory course
- Operation of Distance Learning Network
- Update of APTI424T Source-Receptor Models
- Continue to work with regional consortia on the development and delivery of courses and specialty workshops

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For Information Contact

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Key Courses at UIC in Air Resources Management

- EOHS 400 Principles of Environmental Health Science
- EOHS 405 Environmental Calculations
- EOHS 421 Fundamentals of Industrial Hygiene
- EOHS 424 Environmental Acoustics
- EOHS 428 Industrial Hygiene Laboratory
- EOHS 431 Air Quality Management I
- EOHS 438 Air Quality Laboratory
- EOHS 440 Chemistry for Environmental Professionals

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Key Courses at UIC in Air Resources Management

- EOHS 523 Engineering Control
- EOHS 532 Air Quality Management II
- EOHS 554 Occupational and Environmental Epidemiology
- EOHS 556 Risk Assessment in Environmental and Occupational Health
- EOHS 558 Industrial Toxicology
- EOHS 570 Hazardous Materials Management
- EOHS 584 Radiation Protection

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Key Training Facilities

- Air Monitoring Station: meteorology; CO, SO_2, H_2S, NOx, O_3; TSP, PM_{10}, cascade impactors, dichotomous, FRM $PM_{2.5}$, CNC, and nephelometer.
- Air Quality Laboratory: Orsat, Anderson viable samplers, microgram-balance, portable CO and NO_2, microscopes, flow calibration, annular denuders, method 5 sampling trains, and stack/source simulator.
- Industrial Hygiene and Environmental Measurement Laboratories: AA; GC and GC/MS; portable instruments and personnel samplers (Data RAM, cyclones, and impactors), Hg vapor, PID, FID and IR detectors, and noise levels.

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Recent Research and Training Projects

- Excellence in Environmental Health
  - Centers for Disease Control
- Chronology of PBDE Air Deposition in the Great Lakes from Sedimentary Records
  - U.S. Environmental Protection Agency
- Cytotoxicity of Welding Fumes in Occupational Asthma
  - American Lung Association
- Air Pollution Exposure Assessment for Chicago Children
  - UIC Campus Research Board

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Recent Research and Training Projects

- Enhancing the Detection of PAH Metabolites
  - UIC Campus Research Board
- Sampling Performance of Thoracic Size-Selective Personal Exposure Monitors
  - NIOSH/ERC Research Program, UIC
- Endocrine Disrupting Pesticides
  - UIC Campus Research Board
- Illinois Mold and Moisture Control Project
  - Illinois Department of Public Health

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Recent Research and Training Projects

- Graduate Training in Air Pollution. Air Pollution Training Institute
  - U.S. Environmental Protection Agency
- Advanced Monitoring for Fenceline.Toxic Emissions (uvDOAS)
  - U.S. Environmental Protection Agency
- Air Monitoring Study in Winton Hills/Place
  - Hamilton County Dept of Env. Services
- Aspergillus Surveillance Project at the UIC Hospital
  - University of Illinois Hospital,

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Recent Research and Training Projects

- Reducing Eye Injuries in Agricultural Workers
  - NIOSH
- Source Apportionment of Indoor PAHs in Urban Homes
  - Mickey Leland Nat Urban Air Toxics
- EMPACT grant: Continuous monitoring and real-time reporting of PM2.5 in the Chicago Region

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