



2007 ASHRAE Annual Meeting
June 23 – 27
Long Beach Convention Center
Long Beach, CA



Updated April 11, 2007

Technical Program: *Conserving Natural Resource Use In Buildings*

SUNDAY, JUNE 24, 2007

8:00 AM - 9:30 AM

Transactions Session 1

How Low Can You Go? Case Studies of Low-Energy Buildings

Seminar 1

Chilled Beams: Research and Case Studies of Benefits

Seminar 2

Emission Offsets and Reductions: Reducing Our Environmental Footprint

Seminar 3

Emulators in Building Control: Developments and Experience

Seminar 4

Finding the Funds for Good O&M: Success Stories, Part 1

Seminar 5

Natural Ventilation in Schools: Boon or Bust?

Seminar 6

Moisture Performance of Details, Part 1: Claddings, Flashings, Wall Penetrations, etc.

Seminar 7

Testing and Using Radiant Heating and Cooling Systems

9:45 AM - 10:45 AM

Technical Plenary Speaker: Bernard Amadei, founder, Engineers Without Borders

11:00 AM - 12:30 PM

Transactions Session 2

Automated Fault Detection and Diagnostics (FDD)

Seminar 8

Acoustics for Green Buildings

Seminar 9

Application of Simulation in the 2007 Solar Decathlon Competition

Seminar 10

Finding the Funds for Good O&M: Success Stories, Part 2

Seminar 11

Impact of Prefiltration and Filter Selection for Energy Savings and Reduced Maintenance Expenditures

Seminar 12

Ground Source Heat Pumps for Sustainability

Seminar 13

Moisture Performance of Details, Part 2: Claddings, Flashings, Wall Penetrations, etc.

Seminar 14

New Developments in Residential Ventilation

12:30 AM - 1:30 PM

Forum 1

Hydronic System Energy Performance Requirements for ASHRAE Standard 90.1

Forum 2

Refrigerant Emissions: An Opportunity to Update the Responsibility Use Guidelines

1:30 PM - 3:00 PM

Seminar 15

Acoustics vs. Seismic: Point of View of the Acoustician, OEM, Seismic Hardware Manufacturer and Code Official

Seminar 16

Benchmarking the Energy Performance of Commercial Buildings

Seminar 17

First Time at an ASHRAE Meeting? This Seminar's for You! (No badge required.)

Seminar 18

Heat Pump Sound and Acoustic Experiences

Seminar 19

Modeling Stratified Room Air Distribution Systems with Energy Simulation Tools

Seminar 20

Pressure Losses in Modern-Construction Air Duct Systems

3:15 PM - 4:45 PM**Seminar 21**

How to Give More Effective Presentations (No badge required.)

Seminar 22

Lessons Learned: Case Studies from the Real World of Lawsuits

Seminar 23

New Development of Cleanroom HVAC Technologies

MONDAY, JUNE 25, 2007**8:00 AM - 9:30 AM****Seminar 24**

Economic and Environmental Benefits of Turbine Inlet Cooling

Seminar 25

Energy Efficiency and Innovations in Commercial Kitchens

Seminar 26

Food Freezing Technology

Seminar 27

HVAC&R Seminar I

Seminar 28

Moisture Management Issues in Residential and Commercial Buildings Part 1

Seminar 29

Natural Ventilation: Modeling and Measurements Part 1, State of the Art in Prediction and Design

Seminar 30

New ASHRAE Seismic Resistant Standard and California Seismic Code Review

Seminar 31

Two-Phase Flow at Micro/Nano Scale

9:45 AM - 10:45 AM**Seminar 32**

Back to Basics: Compressors, Part 2

Seminar 33

Case Studies, Part 1: Retrofits of Large Building HVAC Systems

Seminar 34

Exergy 101 for Beginners

Seminar 35

HVAC&R Seminar II

Seminar 36

Inlet installation Effects on Air and Sound performance of Propeller Fan

Seminar 37

Natural Ventilation: Modeling and Measurements, Part 2: Case Studies

Seminar 38

Fire and Other Issues of CKV Duct Systems, Part 1

Seminar 39

Ventilation and IAQ in Apartment Buildings

11:00 AM - 12:00 PM**Seminar 40**

Design of Unitary Air Conditioners for California Efficiency Standards

Seminar 41

Residential DHW: Distributing Hot Water

Seminar 42

Fire and Other Issues of CKV Duct Systems, Part 2

Seminar 43

The ASHRAE Green Guide, 2nd Edition

Seminar 44

The History of System Chemistry

Seminar 45

Variable Speed Pumping Systems

Forum 3

Can Resource Conservation Be Achieved Through the Use of Evaporative Heat Rejection Systems

Forum 4

Field Testing Chillers: What Are Your Expectations?

TUESDAY, JUNE 26, 2007

8:00 AM - 9:30 AM

Seminar 46

Advances in Refrigerant to Air Heat Transfer

Seminar 47

California Gold Rush: Cashing in on Sustainability with CHP in California

Seminar 48

Climate Change: Modeling the Weather and Its Potential Impacts on Building Performance

Seminar 49

Integrated Design Load Calculations

Seminar 50

Pressure Independent Valves

Seminar 51

Refrigeration System Operation Techniques for Energy Cost Reduction

Seminar 52

Thermal Comfort and IAQ in Naturally Ventilated Environments

9:45 AM - 10:45 AM

Seminar 53

Lubrication of Variable Speed Compressors

Seminar 54

What's New Under the Sun?

Forum 5

Dedicated Outdoor-Air Systems (DOAS): What Information is Required to Develop a Uniform Design Guide?

Forum 6

Do We Need Drier Air in Buildings?

Forum 7

Measurement of Gas Phase Contaminants: Input for Guideline GPC27P

Forum 8

Naturally Ventilated Buildings: What Needs to Be Included to Design Them Properly?

Forum 9

What Topics Should Be Included in a Credentialing Program in Sustainability

11:00 AM - 12:30 PM

Transactions Session 3

Improvements in Manufactured Housing

Seminar 55

Chiller Tower Control: Marketing Hype vs. Physics Basics

Seminar 56

Emerging Issues in Environmental Health

Seminar 57

High Rise Residential Building HVAC Systems

Seminar 58

Issues Update: Regulating Climate Change and Greenhouse Gas Emissions

Seminar 59

Novel Applications of Radiant Cooling with GSHPs

Seminar 60

The Energy Performance Buildings Directive in the EU: Implementation in Existing Building Stock

11:00 AM - 1:00 PM

Poster Session

Presentation of 27 ASHRAE technical papers by poster.

12:30 PM - 1:30 PM

Forum 10

Experience with Coil Fouling, UV and Energy Savings in HVAC Systems

Forum 11

Is Green Clean? IAQ and Energy Efficiency for LEED and Green Buildings

WEDNESDAY, JUNE 27, 2007

NEW! Wednesday's program is focused on 8 topics for in-depth presentations and discussions. Each program number is linked to the technical program containing the session abstract and speakers' information.

COMMISSIONING

Forum 14

What is Needed to Commission Air Distribution Systems for Small Commercial Buildings?

8:00 am – 9:00 am

Seminar 63

Commissioning Sustainable Buildings

9:15 am – 10:45 am

Forum 18

What Topics Should be Included in the Credentialing Program on Commissioning

11:00 am – 12:00 pm

Seminar 78

Measurement and Verification for Retrocommissioning

12:15 pm – 1:45 pm

DATA CENTER COOLING

Transactions Session 6

High Density Cooling Update

8:00 am – 9:00 am

Seminar 69

Utilizing Economizers in a Data Center

9:15 am – 10:45 am

Seminar 71

Energy Efficient Controls for Data Centers

11:00 am – 12:00 pm

Seminar 74

Electronics Cooling: Techniques and Applications

12:15 pm – 1:45 pm

ENVIRONMENTAL HEALTH

Forum 13

The Hot Potato, and Is It Glowing?

8:00 am – 9:00 am

Transactions Session 7

Applications of Multizone Airflow and Contaminant Transport Modeling

9:15 am – 10:45 am

Forum 17

What Can the Environmental Health Committee Do for You?

11:00 am – 12:00 pm

Seminar 80

UVGI Installations in Government Buildings: Exploring the Knowns, Unknowns, and Gaps Regarding Potential Benefits for Public Health, Employee Safety, and Energy Efficiency

12:15 pm – 1:45 pm

EXERGY

Transactions Session 5

Exergy Efficient Systems and Applications for Sustainable Buildings

8:00 am – 9:00 am

Seminar 65

Exergy 201: Use It Or Lose It Forever

9:15 am – 10:45 am

Forum 15

Dollars and Senses of Exergy: How Exergy Analysis Can Help for Greener, Affordable and Sustainable Buildings

11:00 am – 12:00 pm

Transactions Session 8

Exergy: a New Frontier in Green Building Simulation

12:15 pm – 1:45 pm

HEAT PUMPS

Transactions Session 4

Absorption/Sorption Chillers, Heat Pumps, and Refrigeration Systems

8:00 am – 9:00 am

Seminar 66

Heating with Forced Air Heat Pump Systems: Past, Present and Future

9:15 am – 10:45 am

Forum 16

Energy Recovery Systems Save Natural Resources, So Why Aren't They Used More Often?

11:00 am – 12:00 pm

Seminar 75

Emerging Technologies for Absorption/Sorption Systems

12:15 pm – 1:45 pm

LABORATORY DESIGN

Forum 12

Laboratory Fume Hood Performance Testing: Getting the Most from Your Investment

8:00 am – 9:00 am

Seminar 67

Reducing Air Flow Rates in Labs: Balancing Energy Savings with Risk

9:15 am – 10:45 am

Seminar 72

Lab Design with Low Flow Chemical Fume Hoods

11:00 am – 12:00 pm

Seminar 77

Laboratory Noise Control: Designing Quieter Systems

12:15 pm – 1:45 pm

PEAK DEMAND/THERMAL STORAGE SYSTEMS

Seminar 61

Evaporative Cooling Strategies to Reduce Peak Electric Demand, Part One

8:00 am – 9:00 am

Seminar 64

Evaporative Cooling Strategies to Reduce Peak Electric Demand, Part Two

9:15 – 10:45 am

Seminar 73

Secondary Benefits of Thermal Energy Storage

11:00 am – 12:00 pm

Seminar 76

Energy Performance of Thermal Energy Storage Systems

12:15 pm – 1:45 pm

REFRIGERATION

Seminar 62

Refrigeration Systems Using Natural Refrigerants

8:00 am – 9:00 am

Seminar 68

Retrofit Technologies for Supermarket Refrigeration Systems and Display Cases

9:15 am – 10:45 am

Seminar 70

Design Essentials for Refrigerated Storage Facilities

11:00 am – 12:00 pm

Seminar 79

Multi Split Systems and Variable Refrigerant Flow

12:15 pm – 1:45 pm