

TRACK SESSIONS DESCRIPTIONS

A1

Texas Challenges and Texas' Response

Monday, 3/17/03
2:00 PM - 5:00 PM

Session Chair: Jerry Matthews
Texas Council on Environmental Technology, Executive Director

Title: Environmental Challenges

Speaker: David Allen
University of Texas at Austin, Professor & Director, Center for Energy & Environmental Resources

Synopsis: Air Emissions, Texas Emission Reduction Plan (TERP) and State Implementation Plan (SIP)

Title: Survey: Emissions Reduction Technologies

Speaker: Chris Lindhjem
Environ International Corporation

Synopsis: Survey of existing emissions reduction technologies for mobile sources; new technology needs

Title: Combustion Technologies

Speaker: Hamid Abbasi
Energy Utilization Center, Gas Technology Institute, Director

BREAK ~ 3:20 pm – 3:40 pm

Title: Technology Verification

Speaker: Doug VanOsdell
Research Triangle Institute, Senior Program Director

Synopsis: EPA's Environmental Technology Verification (ETV) Program publishes independent, reliable, and high-quality performance data from which mobile source air pollution control technology users can make informed purchase decisions.

Title: Grants and Incentives for Technology Development

Speaker: Jerry Matthews
Texas Council on Environmental Technology, Executive Director

Synopsis: TCET grant program

Title: Utility Standard Offer Programs

Speaker: Alan Ahrens
Reliant Energy, Energy Engineer

Speaker: Terry Swan
Entergy, Senior Customer Service Specialist

TRACK SESSIONS DESCRIPTIONS

A1

Texas Challenges and Texas' Response (Cont'd)

Monday, 3/17/03
2:00 PM - 5:00 PM

Title: Energy Efficiency Grants at the PUC

Speaker: Theresa Gross
Texas Public Utility Commission, Energy Efficient Grant Administrator

Synopsis: Overview of the Public Utility Commission's energy efficiency grant program. This presentation will include achievements from the first year's funded projects, as well as the project proposals for the second grant cycle.

TRACK SESSIONS DESCRIPTIONS

A2

Sustainability for the Future

Monday, 3/17/03

2:00 PM - 5:00 PM

Session Chair: Dennis Milligan
The Dow Chemical Company, Global Waste Minimization Leader

Title: Planning for the Future- Dow's Sustainable Development Program

Speaker: Terry Welch
The Dow Chemical Company

Synopsis: Dow began the Sustainability journey in 1999 with a 12 Point Plan aligned to the Strategic Blueprint. The journey has been one of learning and challenge.

Title: Planning For the Future- DuPont's Sustainable Development Program

Speaker: Barbara Pederson
DuPont, Gulf Coast Regional Environmental Team Leader

Synopsis: DuPont is committed to sustainable growth which translates to creating shareholder and societal value while decreasing the environmental footprint along the value chain. The "environmental footprint" includes injuries, illnesses, incidents, waste and emissions, and depletable forms of raw materials and energy. Key strategies will be shared that are working for DuPont.

Title: Total Cost Assessment- A Useful Tool for Integrating EH&S and Risk Into Decisions For Sustainable Development

Speaker: Ray Schuette
The Dow Chemical Company, TBCA Focal Point

Synopsis: How The Dow Chemical Company has used Total Cost Assessment (developed by the AIChE Center for Waste Reduction Technologies) to make more sustainable decisions.

Title: Water- A Critical Issue for Sustainability

Speaker: Tim Finley
The Dow Chemical Company, SR Environmental Engineer

Synopsis: Drought condition and water availability issues around the world have increased concerns for the availability of what has long been viewed and managed by many as a free and plentiful resource. Dow has engaged this issue as one that is critical to sustainability. Efforts to manage it has and will continue to change the way we do business at Dow.

TRACK SESSIONS DESCRIPTIONS

A3

Emissions Reductions and Combined Heat and Power Implementation

Monday, 3/17/03

2:00 PM - 5:00 PM

Session Chair: Theodore Bronson
Gas Technology Institute, Associate Director

Title: Distributed Energy Policies in Texas: An overview of recent Texas DE regulatory and environmental policies.

Speaker: David Schanbacher
Texas Commission on Environmental Quality

Title: CHP Program Advances for Industrial End Users

Speaker: Merrill Smith
U.S. Department of Energy

Title: Overview of CHP/EPA Partnership Program - How the CHP/EPA Partnership can help end users get CHP in the field.

Speaker: Christian Fellner
Environmental Protection Agency

BREAK

Title: Ultra Low Emissions Power Generation Using Advanced Gas Turbine Technology.

Speaker: Dennis Moss
Kawasaki

Title: What Can Utilities Outsourcing Do for Your Company?

Speaker: Scott Laidlaw
CINergy

Synopsis: Learn about emission reductions and other benefits that can be achieved with combined heat and power. Explore the efficiency and flexibility of CHP as we present proven successes achieved at actual projects.

Title: Bayport Energy Center - Emissions Compliance and Improved Competitiveness through Thermally Balanced Combined Heat & Power.

Speaker: Dan Thompson
Nations Energy

Synopsis: Nations Energy will construct, own, and operate a thermally balanced gas turbine Combined Heat & Power project to supply electric and thermal energy to NOVA Chemicals Corporation and ATOFINA Petrochemicals, Inc. in Pasadena, TX. The project is a key element in NOVA's and ATOFINA's strategy to comply with NOx reduction requirements of the Texas State Implementation Plan for the Federal Clean Air Act compliance.

TRACK SESSIONS DESCRIPTIONS

A4

Organizational and Managerial Aspects of Your Plant's Energy-Efficiency Program

Monday, 3/17/03
2:00 PM - 5:00 PM

Session Chair: Paul Scheihing
U.S. Department of Energy, Team Leader, Chemical and Enabling Technologies

Title: Utility Mapping and Benchmarking Tool

Speaker: Joseph Rogers
American Institute of Chemical Engineers, Director

Synopsis: Industry experience has shown that many plant utility personnel do not have an adequate understanding of their energy cost structure and where the major focus should be for any energy savings program. This tool is being developed to address this need and is designed to provide an engineer assigned to a plant utility to be able to develop feel for (A) the cost of all energy sources being supplied to the plant, (B) how much energy is being consumed by the individual utility services and, (C) where there are opportunities to realize savings.

Title: 3M Company's Energy Management Program

Speaker: Steve Schultz
3M Energy Management, Energy Program Manager

Synopsis: 3M's Energy Management Program has been operational since 1973 and provides global leadership to continuously improve energy efficiency, reduce costs and reduce environmental impacts.

BREAK

Title: Challenges to Energy and Greenhouse Gas Reduction in BP Chemicals Plants

Speaker: Brian Dinsmoor
BP Chemicals

Synopsis: BP has committed to do its part to prevent adverse climate change. How this influences existing business processes and decisions is an unfolding story in the BP Chemicals plants. Past experience at achieving corporate GHG reduction targets offers some help. Current options and how they are being addressed by a complex organization with often conflicting priorities are discussed.

TRACK SESSIONS DESCRIPTIONS

A5

ExxonMobil Showcase

Monday, 3/17/03

2:00 PM - 5:00 PM

Session Chair: Doug Deason
ExxonMobil Chemical Company, Senior Staff Engineer

Synopsis: Topics include results from a process heater retrofit project, use of combined heat and power, and the company-wide Global Energy Management System.

TRACK SESSIONS DESCRIPTIONS

A6

Highlights from Plant Tour: Rohm and Haas Texas Inc.

Monday, 3/17/03

2:00 PM - 5:00 PM

Rohm and Haas Inc.'s award winning energy-efficiency program will be presented. Topics include program goals, challenges and the significant combined benefits (financial, environmental and sustainability) obtainable from a successful energy program. Several projects ranging from steam leak management to a complex total site real-time energy optimization system will be covered. The importance of best practices and metrics utilization as well as potential benefits from new initiatives like pinch analysis will be addressed.

Session Chair: Jeff Hackworth
Rohm & Haas Texas Inc., Energy Manager

TRACK SESSIONS DESCRIPTIONS

B1

Reducing NOx Emissions from Combustion Point Sources

Tuesday, 3/18/03
10:20 AM - 12:00 PM

Session Chair: Doug Deason
ExxonMobil Chemical Company, Senior Staff Engineer

Title: The Cooperative Targeted Assessment: Stepping Stone to Efficiency at Merisol's Cresylic acid manufacturing facility.

Speaker: Jim Grisham
Merisol

Title: Meeting Multiple Challenges: Re-Rating W.A. Parish Unit 8: NOx Reductions and Performance Improvements at a 600 MW Coal-fired Electric Generating Unit.

Speaker: Derek Furstenwerth
Reliant Resources, Manager, Air Resource Division, Environmental Department

Title: Air Products' New Environmental Optimization Technology and Its Significant Cost Savings Potential for HGA Industry.

Speaker: Beth Brandeis
Air Products

TRACK SESSIONS DESCRIPTIONS

B2

Reductions in VOC Emissions from Flaring Operations: Technologies and Practices

Tuesday, 3/18/03
10:20 AM - 12:00 PM

Session Chair: Dennis Griffith
Granherne, Inc., Senior Process Consultant

Title: Flares: Are They the Answer or the Problem?

Speaker: Karen Olson
Texas Commission on Environmental Quality, Senior Engineer

Synopsis: To obtain high destruction of emissions, flares must be properly operated. What is proper operation? What can be done to assure low emissions from flares?

Title: VOC Emissions from Flare Systems

Speaker: Scott Smith
Zeeco Inc., Manager Flare Products

Synopsis: This presentation will review and discuss the following as they apply to flare systems for refining and chemical plant applications:

- 1) Current regulatory requirements for sizing and performance
- 2) Published test data basis for current regulatory requirements
- 3) Comparison of estimated flare emissions for various operating conditions
- 4) Discussion of flare operating practices and impact on VOC emissions
- 5) Discussion of various types of flares and impact on VOC emissions of each specific type.

TRACK SESSIONS DESCRIPTIONS

B3

How Can Small Players Survive?

Tuesday, 3/18/03
10:20 AM - 12:00 PM

Session Chair: Brian Dinsmoor
BP Chemicals, Plant Manager

Title: Self-Help Energy Analysis for Your Plant

Speaker: Warren Heffington
Texas A&M University, Assistant Professor, Mechanical Engineering Department
Synopsis: No-cost, low-cost projects and resources will be presented for the advantage of the smaller facility that is limited in capital and personnel.

Title: Saving Energy Pays

Speaker: George Smith
CenterPoint Energy, Administrator, Commercial and Industrial Services
Synopsis: CenterPoint Energy and other Texas Utilities have \$29 million in energy efficiency incentives for commercial and industrial facilities in 2003. Hear how your company can benefit from these programs.

Title: Outsourcing: Is it right for you?

Speaker: Thomas O'Brien
Integrated Process Solutions
Synopsis: Outsourcing can be a constructive way for a company to improve its competitive position. Planning, finding the "right partner", and execution are the key to achieving results.

TRACK SESSIONS DESCRIPTIONS

B4

Resources from the Department of Energy

Tuesday, 3/18/03
10:20 AM - 12:00 PM

Session Chair: James Quinn
U.S. Department of Energy

Title: DOE BestPractices Plant-Wide Assessments

Speaker: Mitch Olszewski
Oak Ridge National Laboratory

Synopsis: The DOE BestPractices plant-wide assessment activity will be described and results obtained from assessments conducted in chemical and petroleum plants will be presented.

Title: DOE Software Tools

Speaker: Fred Hart
U.S. DOE - Office of Energy Efficiency and Renewable Energy, Technology Manager

Title: NICE3/ I&I Program and Technologies

Speaker: Rolf Butters (with assistance from George Dzyacky)

Title: SBIR Program and Technologies

Speaker: Charles Russomanno

TRACK SESSIONS DESCRIPTIONS

B5

Environmental Management Systems, Pollution Prevention and Energy Efficiency

Tuesday, 3/18/03
10:20 AM - 12:00 PM

Session Chair: Paul Judice
Texas Commission on Environmental Quality, Pollution Prevention and Industry Assistance

Synopsis: Environmental Management Systems (EMS) provide an excellent foundation for both Pollution Prevention (P2) and Energy Efficiency (E2) programs. This session explores using an EMS, including the new Responsible Care- Management System, as a springboard for improving overall organizational performance and for going beyond regulatory compliance.

Title: Performance Based Regulations and the Texas EMS Program

Speaker: Ken Zarker
Texas Commission on Environmental Quality

Synopsis: Details: Ken Zarker will give a big picture description of regulatory flexibility and the development of performance-based regulations, the Texas EMS program and the movement to include Energy Efficiency in Pollution Prevention efforts. Mr. Zarker is the manager of TCEQ's Pollution Prevention Program. He has a B.S. in Environmental Management and has been involved in the agency's P2 programs since 1982 and is currently developing new initiatives to increase regulatory flexibility and innovation.

Title: The New Responsible Care Management System

Speaker: Barry Stutts
Bayer Corporation, Manager, Responsible Care

Synopsis: Details: Barry Stutts, P.E., will provide a thorough look at the details of an EMS using the new Responsible Care Management System (RCMS) as a vehicle. Mr. Stutts is the Manager of Responsible Care- for Bayer Corporation in Pittsburgh PA. He is the current company chairperson of the American Chemistry Council Team that is combining Responsible Care- with ISO 14001 to create the RCMS and its mandatory third-party certification program. He has a B.S. in Chemical Engineering and teaches Business Management courses on the graduate and undergraduate level.

Title: Performance Based EMSs, Pollution Prevention and Energy Efficiency

Speaker: Jeff Voorhis
Texas Commission on Environmental Quality

Synopsis: Details: Jeff Voorhis, P.E., will illustrate through case studies a variety of areas that a company can explore to improve energy efficiency, prevent pollution and reinvigorate the organization while implementing an EMS. Mr. Voorhis has worked with several hundred facilities in Texas and Mexico and has accumulated a wealth of ideas and techniques that have saved companies millions in reduced operating costs. He has a B.S. in Petroleum and Natural Gas Engineering, and prior to joining the PPIA section of TCEQ, he spent several years as an engineer in the petroleum industry. Mr. Voorhis is a certified ISO 14001 EMS Lead Auditor.

TRACK SESSIONS DESCRIPTIONS

B5

Environmental Management Systems, Pollution Prevention and Energy Efficiency (Cont'd)

Tuesday, 3/18/03
10:20 AM - 12:00 PM

Title: Performance Based EMSs, Pollution Prevention and Energy Efficiency

Speaker: Atiq Sediqi
Texas Commission on Environmental Quality

Synopsis: Details: Atiq Sediqi will use the Process Heating Assessment and Survey Tool (PHAST) to demonstrate the application of readily available tools for identifying Aaspects@ and Aimpacts@ when building an EMS and how that effort can highlight E2 opportunities. Mr. Sediqi has worked in the Houston area both as a TCEQ Air Investigator helping companies achieve compliance and as a PPIA Engineering Specialist helping companies reduce emissions and save money through P2 and E2 projects. He has B.S. and M.S. degrees in Mining Engineering, a Masters of Public Health degree and more than thirty years experience in Environment, Health and Safety.

TRACK SESSIONS DESCRIPTIONS

B6

Highlights from Valero's Houston Refinery Tour

Tuesday, 3/18/03
10:20 AM - 12:00 PM

Valero will present five topics from its refinery tour: a refinery-wide energy model, FCC power recovery train, crude heaters excess air control, the co-generation operations and automatic blowdown control.

Speaker: Gary Faagau
Valero Energy Corporation, Director, Best Practices Operations

Speaker: John Clarke
Aspen Tech

Speaker: Kurt DeKroeger
Conmec

Speaker: Robert Bambeck
Bambeck Systems

TRACK SESSIONS DESCRIPTIONS

C1

Reducing NOx Emissions from Combustion Point Sources

Tuesday, 3/18/03

2:00 PM - 5:00 PM

Session Chair: Doug Deason
ExxonMobil Chemical Company, Senior Staff Engineer

Title: Ultra-Low NOx LeanPremix Burners Eliminate SCRs for Process Heaters

Speaker: Jim Seebold, ChevronTexaco (RET) Richard Waibel, John Zink Co., LLC

Synopsis: The key to extremely low NOx gaseous external combustion is deep penetration into the low-Btu fuel regime whilst maintaining safe stable operation. Innovative near-zero NOx emission lean premix (first listed paper) and fuel conditioning (second listed paper) technologies for industrial process heaters and power boilers are described in this paper together with application results and the unique skunkworks research and development process that produced them.

Title: Ultra-Low NOx COOLBurners Eliminate SCRs for Boilers

Speaker: Jim Seebold, ChevronTexaco (Retired) Tim Webster, John Zink Co., LLC

Synopsis: The key to extremely low NOx gaseous external combustion is deep penetration into the low-Btu fuel regime whilst maintaining safe stable operation. Innovative near-zero NOx emission lean premix (first listed paper) and fuel conditioning (second listed paper) technologies for industrial process heaters and power boilers are described in this paper together with application results and the unique skunkworks research and development process that produced them.

Title: Heat Input Affects NOx Emissions from Internal Flue Gas Recirculation Burners

Speaker: Doyle Bishop
Callidus Technologies, L.L.C, Vice President

Synopsis: Ultra low NOx technology and the motivation behind it are described. A simple calculation method for the probable performance of ultra low NOx burners in a heater is presented as well as caveats for its use. Field data and computational fluid dynamic confirmation are followed by general recommendations to avoid the misapplication of internal flue gas recirculation burners.

Title: Successful Next Generation Low NOx Burner Retrofit Project in a Northern California Refinery

Speaker: Kurt Kraus
Callidus Technologies LLC

Synopsis: Recent advances in combustion technology and the completion of several refinery NOx reduction projects throughout California provide a broad experience base to support NOx reduction efforts in other areas of the country. A detailed review of a successful project at a Northern California refinery presents widely applicable insight and guidance.

TRACK SESSIONS DESCRIPTIONS

C1

Reducing NOx Emissions from Combustion Point Sources (Cont'd)

Tuesday, 3/18/03

2:00 PM - 5:00 PM

Title: Practical Affordable NOx Control for Process/Cracking Furnace Applications

Speaker: Scott Reed
Zeeco Inc., Vice President - Key Accounts

Synopsis: Zeeco can assist end users in achieving low NOx requirements for the Houston Galveston Area (HGA) with our affordable patented design of the Freejet process burner. The Freejet burner is a simple proven design that saves end users cost of installation, maintenance and initial capital investment while meeting requirements of the HGA.

Speaker: Rich Paganiani
GE Turbines

Title: Burner Retrofit Technology for Boilers, Heaters, and Supplementary Fired Cogeneration.

Speaker: Thomas Sayers
Coen Company, Inc., Marketing Manager

Speaker: Mark Clavelli
Coen Company, Inc., Manager, Combustion Retrofits and Turnkey

TRACK SESSIONS DESCRIPTIONS

C2

Reductions in VOC Emissions from Process Vents, Cooling Towers and Fugitive Sources

Tuesday, 3/18/03
2:00 PM - 5:00 PM

Session Co-Chair: Chaitali Dave
Kellogg, Brown and Root, Environmental Engineering
Session Co-Chair: Jill Brant
Kellogg, Brown & Root

Title: HRVOC Rules Overview

Speaker: Ashley Forbes
Texas Commission on Environment Quality, Policy Coordinator
Synopsis: A discussion of the recently adopted highly reactive volatile organic compound (HRVOC) regulations in Texas which affect process vents, cooling towers, and fugitive sources.

Title: BIOSORPTION: An Air Pollution Control Solution

Speaker: Anuj Saha
VEETech
Synopsis: BIOSORPTION is a technology utilizing combined principles of gas/vapor sorption and concurrent aerobic microbial Biodegradation, handling varieties of VOC contaminants emitted from chemical/allied production operations.

Title: TBD

Speaker: Mike Smylie
Environ Corporation

Title: A Review of Emission Factors from DuPont Facilities

Speaker: Bruce Davis
DuPont Engineering, Technology Consultant
Synopsis: Fugitive Emission measurement studies have been conducted at a number of DuPont facilities. The data from these studies can be divided into three performance categories. A set of questions is used and discussed to determine which performance category applies to a given process unit.

TRACK SESSIONS DESCRIPTIONS

C3

Plant Energy Optimization

Tuesday, 3/18/03

2:00 PM - 5:00 PM

Topics include software, case studies of use, how to select an optimization program, and costs and benefits: how to convince management to purchase a program.

Session Chair: Jeff Hackworth
Rohm and Haas Texas Inc., Energy Manager

Topics to be presented:

Does Optimization Make Sense For Your Plant?
Justifying An Optimization System to Management
Optimizer Evaluation and Selection Process
Optimization Obstacles and Lessons Learned
Future Direction of Optimization Technologies and Practices

Case Studies to be presented:

Dow Chemical, Freeport, Texas
Rohm and Haas Texas Inc., Deer Park, Texas

Optimization Systems to be presented:

VisualMESA
AspenTech
Veritech
Lightridge Resources
Emerson Process Management MDC

TRACK SESSIONS DESCRIPTIONS

C4

Resources from the Department of Energy

Tuesday, 3/18/03

2:00 PM - 5:00 PM

Session Chair: Dickson Ozokwelu
U.S. DOE - Energy Efficiency and Renewable Energy, Lead Technology Manager

Title: DOE BestPractices Plant-Wide Assessments

Speaker: Mitch Olsezewski
Oak Ridge National Laboratory

Synopsis: The DOE BestPractices plant-wide assessment activity will be described and results obtained from assessments conducted in chemical and petroleum plants will be presented.

Title: Emerging Technologies

Speaker: Brian Valentine
U.S. Department of Energy, Technology Manager

Title: DOE Software Tools

Speaker: Fred Hart (with assistance from Arvind Thekdi and Alan Eastwood)
U.S. DOE - Office of Energy Efficiency and Renewable Energy, Technology Manager

BREAK

Title: SBIR Program

Speaker: Charles Russamanno

Title: NICE3/I&I Program and Technologies

Speaker: Rolf Butters with assistance from George Dzyacky

TRACK SESSIONS DESCRIPTIONS

C5

Supply Chain Optimization

Tuesday, 3/18/03

2:00 PM - 5:00 PM

Session Chair: John Oleson
Oleson Consulting, President

Title: Supply Chain Optimization Methodology and Case Studies

Speaker: John Oleson
Oleson Consulting, President

Synopsis: This presentation will address the methodology and results of supply chain optimization efforts. The work will include optimization and improvements of the supply chain from purchase of raw materials to delivery of the end product. The case studies will be for a medium sized chemical company with a single manufacturing site and a single product line and a multinational company with a global presence and multiple product lines. The profit improvements from this work amounted to 5 – 15% of sales through streamlining operations and inventory reduction.

Title: Supply Chain Continuity with Emphasis on Security from an IT Perspective

Speaker: Representative from CSC

Title: Enterprise Managed Operational Efficiency - Lowering Plant Maintenance Costs with Today's Information Technologies

Speaker: Mike Sparkman
CSC Energy

Synopsis: In the annual report of any major energy company the primary goal reported to shareholders is cost reduction through operational efficiencies. It's an old story and, for many companies, has been an elusive goal. But, by looking at multiple plants as part of an interdependent network rather than separate P&Ls, new opportunities emerge.

Title: Plant Lifecycle Supply Chain Information Exchange

Speaker: Charles Woods
Fiatech

Synopsis: Plant facilities are key to any product supply chain. This presentation will describe a significant effort using XML to automate information exchange in the supply chain that creates and maintains plant facilities.

TRACK SESSIONS DESCRIPTIONS

C6

Highlights from Two Tours: Chevron Phillips Chemical Company and Calpine Baytown Energy Center

Tuesday, 3/18/03
2:00 PM - 5:00 PM

Session Chair: Warren Heffington
Industrial Assessment Center of Texas A&M University, Director

Synopsis: Chevron Phillips will present the highlights of its tour, including the results from the DOE air and steam assessments, use of pressure swing adsorption technology, a compressor monitoring program and their steam trap monitoring program.

Title: DOE Air and Steam Assessments

Speaker: B.J. Davis
Chevron Phillips Chemical Company, LP; Process Engineering Department

Title: Recovery Process using Pressure Swing Adsorption Technology

Speaker: Phillip Cook
Air Products and Chemicals, Inc.

Title: Compressor Monitoring Program

Speaker: Phillip Rosen
Chevron Phillips Chemical Company, LP; Process Engineering Department

Title: Steam Trap Monitoring Program

Speaker: Miguel Chen
Chevron Phillips Chemical Company, LP; Project Engineering Department

BREAK

Synopsis: Calpine will present an overview of their Baytown Energy Center which provides power and steam to Bayer and power to the wholesale grid, with a focus on combined cycle, cogeneration, and NOx control technologies.

Title: Calpine Baytown Energy Center Tour Highlights

Speaker: Chris Shugart
Calpine, Standard Plant Program Manager

TRACK SESSIONS DESCRIPTIONS

D1

How to Commercialize Your Technology
Wednesday, 3/19/03
8:00 AM - 11:00 AM

Session Chair: Kathey Ferland
Texas Industries of the Future, Project Director

Title: Commercialization Strategies that Work

Speaker: Jenny Servo
Dawnbreaker, President

Synopsis: A winning strategy must fit with your corporate objectives, as well as investor and supplier requirements. Learn how to pick the best commercialization strategy.

Dr. Servo is the founder and president of Dawnbreaker, a professional services firm specializing in commercialization assistance to advanced technology firms. Since 1990, Dawnbreaker has conducted the highly successful Commercialization Assistance Program (CAP) for the U.S. Department of Energy. Approximately 50% of program finalists receive private sector investment within 18 months of program completion.

Title: Good Technology is Necessary but Not Sufficient!

Speaker: John Langdon
HelioVolt Corporation, President

Synopsis: A great technology is not enough to ensure success. In fact, it is only 25% of the battle! What makes up the other 75%?

John Langdon has a BSEE, an MBA, and an MS degree in science and technology commercialization. He has been CEO of three start ups, including one that grew to more than 200 employees and earned investors 150X their money. He is now the VP of Marketing for HelioVolt Corporation, an Austin company commercializing a new process for manufacturing photovoltaic solar power modules. In November, HelioVolt received an "outstanding presentation" award from a panel of VC judges at the NREL Growth Forum in Albany, NY.

BREAK ~ 9:20 am to 9:40 am

Title: How to Overcome First Mover DISAdvantage!

Speaker: Chris Neale
Houston Technology Center, Director

Synopsis: As the energy industry looks more and more to technology start-ups for innovation, the entrepreneur must be understand the barriers to entry for new technologies and possible methods for overcoming the fears of the early adopters.

Title: Knowing Your Market

Speaker: Kathey Ferland
Texas Industries of the Future, Project Director

Synopsis: You have got to know your potential market to sell your ideas to funders. Find out about tools and data sources that are available today.

Kathey Ferland directs the Texas Industries of the Future program at the University of Texas and has a master of science degree in science and technology commercialization. She has worked in the environment and energy fields for twenty years, including twelve years at the Texas state environmental agency, where she directed a national award winning pollution prevention program. Ms. Ferland has conducted market surveys, technology assessments and commercialization plans for technology companies.

Q & A Session with Panel of Speakers

TRACK SESSIONS DESCRIPTIONS

D2

Separations or Distillation Technologies

Wednesday, 3/19/03

8:00 AM - 11:00 AM

Session Chair: Bruce Eldridge
University of Texas, Separations Research Program, Director

Title: The Distillation Column Flooding Predictor

Speaker: George Dzyacky
2ndpoint, L.L.C.

Synopsis: This presentation by Principal Investigator George Dzyacky will describe a FY2002 Cooperative Agreement awarded by the U. S. Department of Energy to develop a universally useable advanced process control strategy that maximizes the energy efficiency and yield of distillation columns. Collaborators in the study are; The University of Texas at Austin, Shell Global Solutions (US), Motiva Enterprise, Fisher-Rosemount, and CDTEch.

Title: FCC Gasoline Treating Using Catalytic Distillation

Speaker: Mitchell Loescher Ph.D
Chemical Research and Licensing, Process Development / R&D Operations
Manager

Synopsis: CDTECH's commercially-proven process for FCC gasoline sulfur features lower capital costs, superior octane retention, and the ability to operate at reduced severities without generating high mercaptan levels in the treated gasoline. The demonstrated long catalyst life ensures that catalyst removal or replacement is not required prior to a normal FCC turnaround cycle. Long life translates to capital cost savings by eliminating intermediate facilities and the need for additional capacity to make up for mid-FCC cycle downtime.

Title: Membranes for Hydrocarbon Recovery in Petrochemical, Refinery and Natural Gas Processing Applications

Speaker: Hans Wijmans
Director of Research

Synopsis: Since its founding in 1982, MTR has focused on the development of membrane-based separation systems for the recovery of valuable hydrocarbon vapors and liquids. Current commercial applications include recovery of vinyl chloride in polyvinylchloride reactors, recovery of propylene and ethylene from polypropylene and polyethylene resin degassing operations, recovery of ethylene in ethylene oxide and vinyl acetate monomer production and fuel gas conditioning. In the first part of this presentation we will briefly review MTR's technology and the commercial applications, most of which have come to fruition with support from the U.S. Department of Energy (Office of Industrial Technology and Small Business Innovation Research Program).
The second part of the presentation will focus on new membranes and new applications under development at MTR. These include olefin/paraffin separation, recovery of LPG in refinery applications, removal of nitrogen and carbon dioxide from natural gas, recovery of NGL from natural gas, production of bioethanol and the separation of vegetable oils and proteins from extraction solvents.

Title: Performance Benefits of High Capacity Structured Packings

Speaker: Mark Pilling
Sulzer Chemtech USA,

Synopsis: The presentation will show that high capacity structured packing has higher efficiency per a given surface area than competitive packings. These characteristics lead to either advantages in capacity where a lower surface area packing can be used to achieve the same separation or can be used to achieve lower energy costs due to the higher efficiency and lower reflux ratio.

TRACK SESSIONS DESCRIPTIONS

D3

Alternative Energy Resources, Biomass Programs and Transportation Technologies

Wednesday, 3/19/03

8:00 AM - 11:00 AM

Session Chair: Jack Jenkins
U.S. DOE - Denver Regional Office, Senior Energy Management

Title: Using wind energy, with an emphasize of off-shore wind.

Speaker: Steve Palomo
U.S. DOE - Denver Regional Office, Wind Power America, Manager

Title: Using Energy-Efficiency technologies to meet air quality standards.

Speaker: Jerry Kotas
U.S. DOE - Denver Regional Office

TRACK SESSIONS DESCRIPTIONS

D4

Dow Showcase
Wednesday, 3/19/03
8:00 AM - 11:00 AM

Session Chair: Ken Tannenbaum
The Dow Chemical Company, Energy Projects Process Leader

Title: Freeport PC Energy Reduction

Speaker: Michael Mebes

Synopsis: The Six Sigma Methodology is employed to improve energy intensity at the Freeport Polycarbonate plant.

Title: Angus Louisiana Energy Reduction Project

Speaker: Michael Mulherin

The Dow Chemical Company, Power Associate

Synopsis: Six Sigma is used to optimize operation/maintenance of the primary boilers and the steam-reducing station without exceeding boiler air permits.

Title: Styrene Energy Envelope Study Project

Speaker: Daoran Alabin

Synopsis: Identification of opportunities using the Six Sigma methodology to optimize plant energy heat integration, improve efficiency, and reduce CO/C02/NOx emissions.

Title: Texas City Steam Trap Improvement Project

Speaker: Kimberly Pigott

The Dow Chemical Company, Six Sigma Black Belt

Synopsis: Review of the project to optimize the steam delivery in energy systems by reducing steam loss through steam traps.

BREAK

Title: Dow NOx Reduction Project: A Case Study

Speaker: Dennis Jones

The Dow Chemical Company, Project Team Leader, Texas NOx/HRVOC Project

Synopsis: This presentation discusses a cost-effective approach to a NOx reduction program at a multi-site company in the Houston-Galveston area.

Title: Dow By-Product Synergy Project

Speaker: Andrew Mangan

US Business Council for Sustainable Development, Executive Director

Synopsis: By-Product Synergy is a practical application of industrial ecology in which companies work together in a given region to match feedstock needs to unwanted by-products.

TRACK SESSIONS DESCRIPTIONS

D5

Innovative Technologies and Practices Related to Pumps, Motors, Heat Exchange, and Compression Equipment

Wednesday, 3/19/03

8:00 AM -11:00 AM

Session Chair: Jeff Kirk
Celanese Chemicals, Energy Excellence Leader

Title: Intelligent Pumping Systems: Optimizing Pump Life Cycle Performance

Speaker: Mike Pemberton
ITT IPG PumpSmart Control Solutions, Manager, Business Development & Marketing

Synopsis: Recent studies have shown that average pumping efficiency in industrial plants is less than 40%. The application of intelligence pumping systems provides sizeable gains in efficiency and reliability for significant reductions in operating costs.

Title: An Accurate Low Cost Method for Determining Electric Motors' Efficiency for the Purpose of Plant Energy Management

Speaker: Rich Schiferl
Rockwell Automation, Power Systems, Director, Advanced Development

Synopsis: A method to determine the efficiency of an electric motor, to within 1%, without having to remove the motor from its installation is presented.

BREAK

Title: Variable Frequency Drive Applications

Speaker: Tony Dafft
Rohm and Haas

Title: High-Efficiency Plate-and-Shell Heat Exchangers

Speaker: Francois Reverdy, PE
Packinox, Inc., Vice President, Marketing

Synopsis: High-efficiency Plate-and Shell heat exchangers routinely lower annual green house gas emissions by 10,000 tons to 60,000 tons at catalytic processes in the hydrocarbon process industry.