## AIChE Baton Rouge Fall / 2018 Seminar

# Solids Handling & Cooling Tower Seminar + Engineering Ethics

November 9th, 2018

MORNING SESSION: Solids Handling Equipment & Technologies

#### **Topic Description**

#### **Design Fundamentals for Solids Handling**

This presentation will begin with the theory and basics of solids handling from an engineer's perspective. Solids handling basics will be covered including important engineering design parameters used in design including: angle of repose, particle size distribution, particle shape factors, cohesiveness of solids handled, etc. The presentation will address basic questions such as: 1) if or when solids can be treated like a fluid for flow design 2) can or when solids can be conveyed via pneumatic, mechanical, centrifugal force, or other. Next, an overview of the common solids handling technologies will be provided including pneumatic conveyance: dilute phase and dense phase, mechanical conveyance, and gravity flow conveyance systems. The presentation will conclude with the latest technologies and equipment available for solids handling: rotary air-lock valves (vented/not-vented); conveyors; instrumentation, automation & controls, and turn-key solids handling equipment systems. Emphasis will be provided on the common difficulties of instrumentation for proper controls in solids handling processes including level measurement techniques (latest).

## AFTERNOON SESSION: Cooling Tower Fundamentals & Design Overview / Engineering Ethics

#### **Topic Description**

#### **Design Fundamentals for Cooling Towers**

This presentation will begin with the theory and basics of cooling towers including psychrometrics and the basic design parameters used in cooling tower design such as the relative humidity and wet bulb temperature. Design of cooling towers is provided with a discussion of the general limitations of cooling towers for temperature range, approach, cycles, loss, drift, and blowdown (manual and continuous). The discussion of open vs closed cooling systems is provided. Next, a discussion of the evaluation of a cooling tower's efficiency and performance is provided including the Cooling Tower Institute (CTI) Standard STD-202 which encourages cooling tower capacity of 100% or better. The presentation continues on to the different types of cooling towers, fill types, distribution, fan optimization, flow control valves, strainers and filters, and other ancillary equipment. The presentation concludes with an overview of actual installations and addresses problems incurred and problems resolved.

#### **Engineering Ethics**

A presentation of the fifty questions from the LAPELS On-Line Ethics Quiz.

## Solids Handling & Cooling Tower Seminar + Engineering Ethics

Friday, November 9, 2018 8:00AM – 5:00PM

Location: Crowne Plaza Executive Center

4728 Constitution Ave, Baton Rouge, Louisiana 70808, (225) 930-0114

### Earn 8 PDH's! Enrollment is Limited! Sign-Up Early!

### **REGISTRATION FORM**

NEW! Register online at <u>www.aiche-br.org</u> and pay by credit card using PayPal, or mail this completed form with payment to the address below.

NAME:		
MAILING ADDRESS:		
CITY:	STATE: _	ZIP:
COMPANY:		
EMAIL:		PHONE:
TECHNICAL/PROFES	SIONAL SOCIETY MEMBERS	SHIP*: (must indicate)
COST: (Please check appropriate box)		Society Members* prior to 04-Nov-18 Prof Society Members prior to 04-Nov-18 04-Nov-18
(Please include check if that	at is your payment option) dit cards on event day	Armand Melikyan (Seminar Coordinator) P.O. Box 84787 Baton Rouge, LA 70884 Email: armand_melikyan@hotmail.com Phone: (225) 773-0468

\*The AIChE supports membership in Professional and Technical Societies (see list below)

<u>Refund Policy</u>: Advance registration is 100% refundable with notice at least 12 days prior to the date of the seminar. Notice received between 31-Oct-2018 and 08-Nov-2018 is 50% refundable. No refunds on day of the seminar. <u>Cancellation</u>: AIChE reserves the right to cancel this seminar if low attendance is projected. A full refund will be sent in this event.

**EVENT: Solids Handling & Cooling Tower Seminar (7 PDHs)**;

+ Engineering Ethics (1 PDH)

DATE: November 9th, 2018

PROPOSED AGENDA:

7:30 A - 8:00 A Breakfast

8:00 A -11:30 A Solids Handling (BME, HorizonPSI)

11:30 A - 12:30 P Lunch (provided by AIChE)

12:30 P – 4:00 P Cooling Towers (Evaptech/Fischer)

4:00 P - 5:00 P Engineering Ethics (N. Ricord)

#### Presenters:

Thomas Meade - Chief Executive Officer, Bulk Material Equipment (BME)

Email: thomas@bulkmaterialequipment.com | Phone: (214) 601-2577 | www.bulkmaterialequipment.com 1333 W. McDermott, Suite 200 | Allen, TX 75013

Mr. Thomas Meade is the President and CEO Bulk Material Equipment (BME). Thomas holds an B.S. degree from Texas A&M focused on Industrial Supply Chain. He has 20+ years of bulk material handling, processing, storage and air pollution control equipment as well as professional engineering, construction and fabrication experience in wide variety of industries. He owns and operates an industrial manufacturers rep agency that covers the states of TX, OK, LA and AR with a primary focus is on dry bulk solids. Thomas will be discussing general mechanical conveying techniques as well as the latest technologies in point and continuous level control instruments.

Todd Baker – Vice President of Engineering, HorizonPSI Email: tbaker@horizonpsi.com | Phone: (785) 766-6962 | www.horizonpsi.com 1101 Horizon Drive, Lawrence KS 66046

Mr. Todd Baker is the Vice President of Engineering at HorizonPSI. Todd holds a B.S. Degree in Engineering from the University of Nebraska. He has 33 years of bulk material handling experience with extensive application of pneumatic conveying systems in many industry applications. His experience includes 15 years of direct sales and application experience in conveying, weighing and feeding, dust collection and system integration. Todd is responsible for all phases of design, product/process development and project management for HorizonPSI. He has extensive application experience in dilute phase and dense phase conveying systems. As a current member of the NFAP 652 Fundamentals of Combustible Dust committee he is involved in assisting customers with decisions to comply with the current combustible dust standards.

Dave Simac – Business Development Manager, Evaptech, Inc. Email: tbaker@horizonpsi.com | Phone: (913)322-5165 | www.evaptechinc.com 8331 Nieman Road, Lenexa, KS 66214

Mr. Dave Simac is the Business Development Manager at Evaptech, Inc. Dave's primary role is to manage sales and marketing functions involving new towers, after market services, and parts/components within an assigned region. Dave has worked in the cooling tower industry since 1980 and has extensive experience with cooling tower sales and services for the chemical, power, petrochemical and HVAC industries. Dave Simac holds a B.S. in Civil Engineering from the University of Missouri and an M.B.A. from the University of Missouri, Kansas City, MO. He is a member of the American Society of Heating, Refrigeration and Air Conditioning Engineers.

Steve Fischer – President, Fischer Equipment, Ltd. Email: stevef@fischerequipment.com | Phone: (985) 900-2444 2000 Preserve Lake Drive, Suite A | Covington, LA 70433

Mr. Steve Fischer has 30 years of experience as a sales representative for various heat transfer equipment manufacturers. Fischer Equipment has been in business since 1937. Primary equipment focus is on Cooling Towers, Boilers, Water Treatment (boiler feed systems) & Fired Heaters. In the area of cooling towers, Steve has worked with Engineering Consultants & Owners to repair, upgrade, replace and install new cooling towers in process & comfort applications. Steve's focus has been on customers in the Chemical, Petroleum, Power & Paper industries.

Noel J. Ricord, P.E., F.A.I.Ch.E. – Retired, AIChE BR Sect Committee Member Mr. Noel Ricord has 40+ years of experience in the Gulf Coast Chemical Industry. He is currently retired, but has worked for DuPont (North Carolina), Ormet, BBECI, RPM, ENGlobal, Plant Engineering Services, Global Environmental Solutions, Inc. and CB&I. He is a 1969 BSChE graduate from Tulane University and holds a MBA degree from East Carolina University. Noel served in the USAF and the Louisiana Air National Guard and was a commander of the 236<sup>th</sup> Combat Communications Squadron.

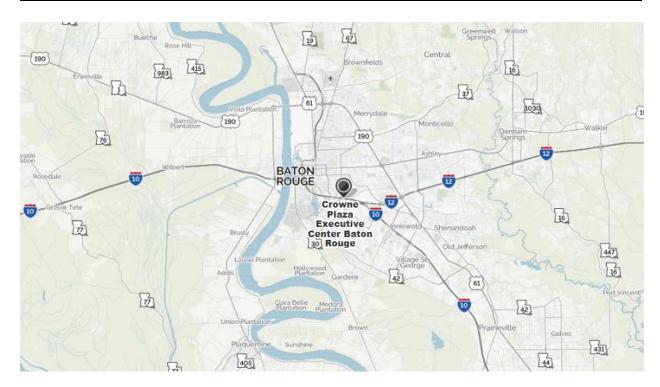
The morning session will cover fundamentals and latest technologies on solids handling including instrumentation and packaged systems. The afternoon session will cover the latest on cooling towers including the Cooling Tower Institute (CTI) Standard STD-202 which encourages cooling tower capacity of 100% or better. The seminar concludes with a presentation on Engineering Ethics (1 PDH).

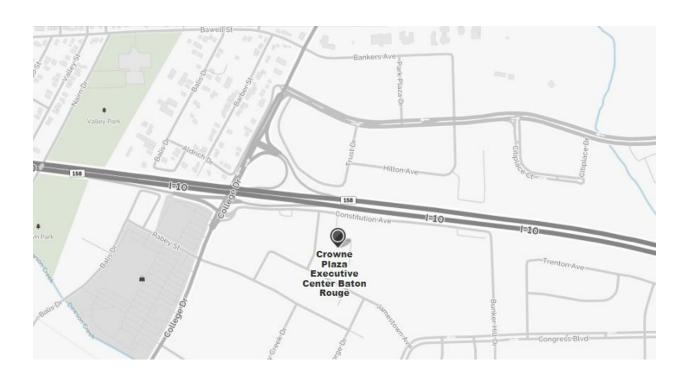
Note: Some topics may change without prior notice.

Notice: Full day registration only. Registration fees will not be reduced for half day attendance. Attendance signatures will be required at the beginning of each presentation. PDH (Professional Development Hour) certificates will be issued based upon attendance list signatures, with Hours reflecting actual attendance. Fees will not be reduced or partially refunded for partial attendance.

\*\*\*Morning and Afternoon Sessions each to include two or three 10 min. breaks (not shown) \*\*\*

### (Maps to the Crowne Plaza 4728 Constitution Ave, Baton Rouge, Louisiana 70808)





- Louisiana Engineering Society (LES)
- Louisiana Society of Professional Surveyors (LSPS)

#### **National Technical Societies**

- America Academy of Environmental Engineers (AAEE)
- American Institute of Architects (AIA)
- American Institute of Chemical Engineers (AICHE)
- American Institute of Electrical Engineers (AIEE)
- American Consulting Engineers Council (ACEC)
- American Concrete Institute (ACI)
- American Institute of Steel Construction (AISC)
- American Management Association
- American Iron and Steel Institute
- American Society of Mechanical Engineers (ASME)
- American Plywood Association (APA)
- American Society of Civil Engineers (ASCE)
- American Society of Engineering Education (ASEE)
- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
- American Society of Safety Engineers (ASSE)
- American Wood Council (AWC)
- Earthquake Engineering Research Institute (EERI)
- Institute of Transportation Engineers
- Institute of Electrical and Electronics Engineers (IEEE)
- Instrumentation Systems and Automation Society (ISA)
- National Council of Examiners for Engineering and Surveying
- National Design Specification (NDS)
- National Society of Architectural Engineers
- National Society of Professional Engineers (NSPE)
- Society of Petroleum Engineers (SPE)
- Society of Petroleum Evaluation Engineers (SPEE)
- Society of Professional Well Log Analysts (SPWLA)
- Society of Women Engineers (SWE)
- Air & Waste Management Association (A&WMA)