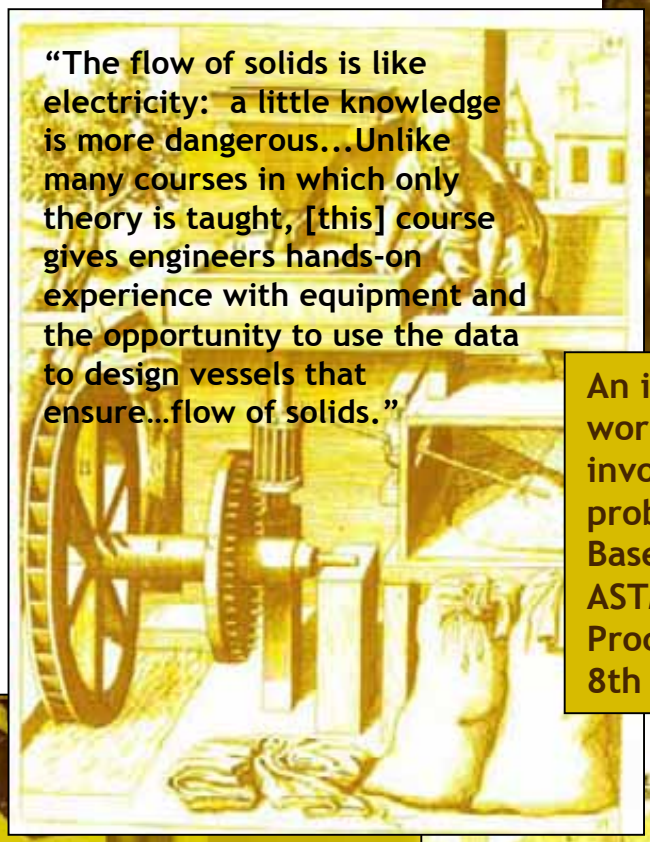
E&G ASSOCIATES

Leaders in Particle Processing & Product Development

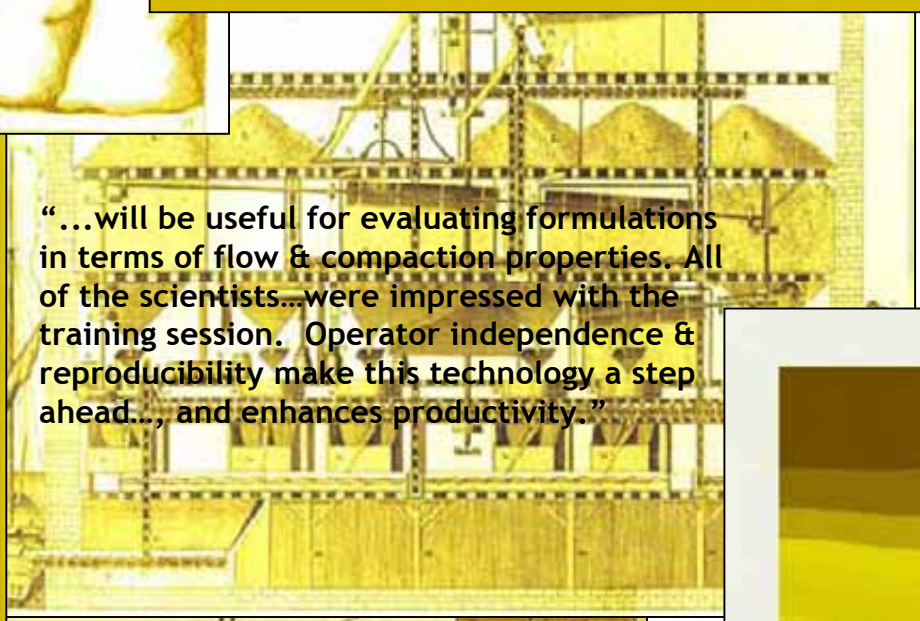
Measuring Powder Flowability & Its Applications: A Hands-On Design-Oriented Workshop

Nashville, TN • January 19-20, 2009
Additional details & courses: www.powdernotes.com

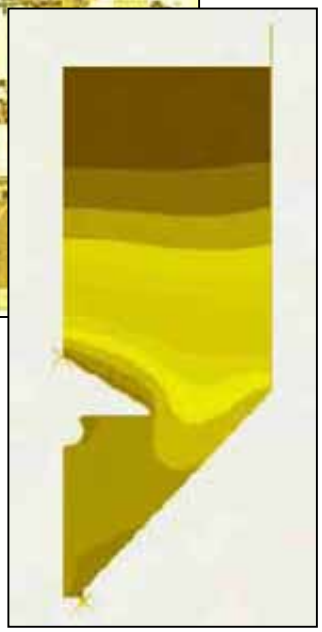


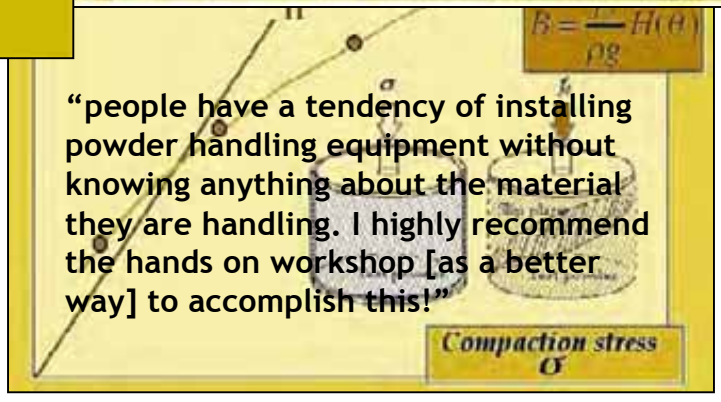
"The flow of solids is like electricity: a little knowledge is more dangerous...Unlike many courses in which only theory is taught, [this] course gives engineers hands-on experience with equipment and the opportunity to use the data to design vessels that ensure…flow of solids."

An intense 2-day powder flow & solids handling workshop, with a unique training approach involving hands-on measurements and team design problems in material handling and compaction. Based on latest advances in powder mechanics & ASTM methods (Section 21: Solids Operations & Processing) Perry's Chemical Engineers' Handbook, 8th Ed., Ennis *et al.*; ASTM Method: D 6682).



"...will be useful for evaluating formulations in terms of flow & compaction properties. All of the scientists…were impressed with the training session. Operator independence & reproducibility make this technology a step ahead.., and enhances productivity."





"people have a tendency of installing powder handling equipment without knowing anything about the material they are handling. I highly recommend the hands on workshop [as a better way] to accomplish this!"

Reservations:615.269.3740 • Fax:615.269.3740 • Mill:1535 Evins Mill Road,Smithville,TN 37166 • courses@powdernotes.com

Measuring Powder Flowability & Its Applications: A Hands-On Design-Oriented Workshop

Nashville, TN • January 19-20, 2009
Additional details & courses: www.powdernotes.com

Course Venue

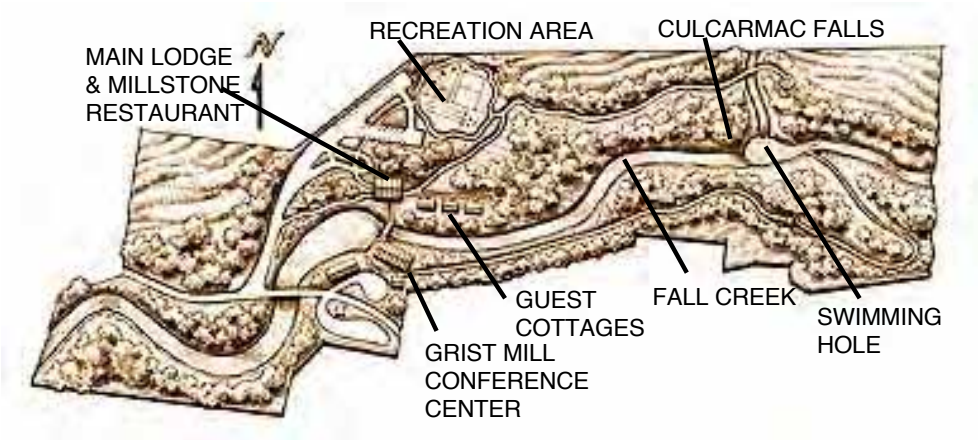
An intense 2-day powder flow & solids handling workshop conducted by E&G Associates, led by Dr.Bryan Ennis. Course content addresses powder flowability & process applications, shear cell measurements & supporting characterization methods, hopper design & material handling issues, segregation, implications for roll compaction & tabletting, and the impact of particle properties on bulk flowability.

As a unique pedagogical hands-on approach, participants are divided into small teams which directly measure flow properties by automated shear cell and fluid-bed aerated permeability cell for a supplied powder, and then apply the determined properties to their own hopper and compaction design problems. Thought provoking homework is supplied to elucidate key concepts and develop participant discussion.

Training is based on latest advances in powder mechanics & ASTM test methods (Section 21:Solids Operations & Processing, Perry's Chemical Engineers' Handbook, 8th Ed., Ennis *et al.*; ASTM Method: D 6682).

The location for the course is a secluded corporate retreat center on the Cumberland Plateau. Further details can be obtained from www.evinsmill.com.

For questions & registration materials, or to arrange an in-house workshop, please contact:
E&G Associates, courses@powdernotes.com
Tel: (615) 591-7510 • Fax: (240) 524-8482



Measuring Powder Flowability & Its Applications: A Hands-On Design-Oriented Workshop

What Do Others Say:

"The flow of bulk solids is like electricity: a little knowledge is more dangerous than none. Fortunately, there are experts like Dr. Ennis who can steer engineers and scientists away from misguided assumptions and blind hypotheses and teach them to use the correct tools for measuring flow properties of solids. Unlike many courses in which only theory is taught, [this] course gives engineers hands-on experience with equipment and the opportunity to use the data to design vessels that ensure…flow of solids. I recommend his course to anyone interested in becoming an expert on the handling of bulk solids."

- Cabot Corporation

"Everyone was impressed with the speed, reproducibility and east of testing materials [with the automated rotary cell], especially those familiar with earlier Jenike cells. [This instrumentation] will be useful for evaluating formulations in terms of flow and compaction properties."

- Pharmacia Corporation

"All of the scientists…were impressed with your training session. The operator independence and reproducibility [of the instrumentation] make this technology a step ahead…, and enhances productivity."

- Pfizer Inc.

"I [have] attended a number of sessions…and training programs…on powder flowability. At the May show…the only session that I took home anything [from that] I could use was the session on…flowability testing by Bryan Ennis. It was clear that Dr. Ennis…[has] put a lot of work into course preparation and given thought to what could be important to those practicing in the field."

- Whitehurst Inc.

"This is an excellent course and I am recommending it to many of my colleagues. …people…have a tendency of installing powder handling equipment without knowing anything about the material they are handling. [Instead] I highly recommend the hands on workshop [as a better way] to accomplish this!…[I found] your knowledge in the field of powder handling very refreshing."

- Eastman Kodak Co.

Previous Course Participants Include:

Abbott, Actavis, Albemarle, Alkermes, Amgen, Astrazeneca, Anderson Co., Biovail Technologies, Bristol-Myers Squibb, Boehringer-Ingelheim, Cabot, Dow, DuPont, Duracell, Eli Lilly & Co., Fauldings, FDA, FMC, Johnson & Johnson, Kodak, Kohler, InHale, Merck & Co., Niro, Noveon, Novartis, Novopharm, Novozymes, PCS Phosphate, Pfizer, Pharmacia, Phelps Dodge, Procter & Gamble, Glatt Air, GSK, Roxane, Schering-Plough, Shire Pharmaceutical, Searle, Teva Pharmaceuticals, Transform Pharma, Tyco Healthcare, Pharmacia, USP, US Steel, Vector, Watson Pharma, Wyeth, Warner Chilcott, & Xerox.

Please note that registration is limited to 15 participants per course date. Course is also offered for in-house training at your company location, and at regional locations on demand. Course fee may be waived for outstanding university students. Direct such requests for scholarship aid to Dr. Bryan Ennis, ennis@powdernotes.com.

For questions & registration materials, or to arrange an in-house workshop, please contact:
E&G Associates • Tel: (615) 591-7510 • Fax: (240) 524-8482 • courses@powdernotes.com

E&G ASSOCIATES
Leaders in Particle Processing & Product Development

Course Schedule & Fees

Evening arrival: Check-in 4:00 PM. Reception/Dinner 6:30/7:30 PM. Introductory Lecture

Day 1:

7:00	Breakfast	
8:00	Morning Lecture (Mill: Davidson Rm)	Powder flow basics, Flow patterns, Segregation & feeding, Automated shear cell measurements, Powder cohesion, friction & flow indices, Examples of representative behavior, Hopper design
9:30	Hand-on Session (Mill: Davidson Rm)	Team measurements of powder flow properties by shear cell. Mass flow design problem to prevent arching. Team discussion of homework.
12:00	Lunch	
1:00	Afternoon Lecture (Mill: Davidson Rm)	Impact of particle properties on bulk flowability, Particle property characterization methods of surface chemistry, hardness, & particle size. Advances in particle sizing.
2:00	Hand-on Session (Mill: Davidson Rm)	Team measurements of particle size. Completion of flow measurements. Team measurements of permeability and aerated cohesion. Shared team discussion of design & homework problems.
4:00	Afternoon Break	
5:30	Dinner	
6:30	Unstructured Time (Mill: Davidson Rm)	Colleague discussion. Shear cell & particle sizing access for client samples. Offered on first come/first serve basis w/prior arrangements. (Requires prior MSDS review & approval with E&G Associates.)

Day 2:

7:00	Breakfast	
8:00	Morning Lecture	Tabletting and roll press design based on powder properties. Segregation characterization methods.
9:00	Hand-on Session (Mill: Davidson Rm)	Tabletting stress transmission & roll press team design problems. Additional powder flow and particle size measurements for client samples.
12:00	Lunch	
1:00	Afternoon Lecture (Mill: Davidson Rm)	Compaction design revisited. Simulations. Additional compaction methods. Heistand indices, Fracture mechanics, Heckle profiles, Permeability.
2:00	Course conclusion	

Please note that registration is limited to 15 participants per course date.
Course fee may be waived for outstanding students. Direct requests to:
scholarship@powdernotes.com.

Course fees: **$1,450 + accommodations. Registration form attached.**
EARLY BIRD - 10% registration discount. Register early to ensure room hold.

Supporting particle size and instrumentation vendors:

iPowder Systems
Instruments for Powder Characterization

CANTY
PROCESS TECHNOLOGY

SYMPATEC

For questions regarding course or in-house workshops, please contact E&G Associates directly.
For course registration and accommodations, please contact :
Evins Mill • Tel: (615) 269-3740 • Fax: (615) 597-2090 • william@evinsmill.com

E&G Associates: 2009 Course Registration & Application Form

Participant Information

Workshop Dates: January 19-20 & January 21-23, 2009, Nashville, TN

(Please print clearly)

Dr./Mr./Mrs./Ms.
(Please Circle One) FIRST NAME M.I. LAST NAME NICKNAME (TO APPEAR ON NAME BADGE)

COMPANY NAME POSITION TITLE

MAILING ADDRESS

MAILING ADDRESS

CITY STATE/PROVINCE ZIP CODE COUNTRY

PHONE FAX E-MAIL

Description of process/product related issues or course objectives

Where did you hear about the course?

❑ Colleague ❑ E-mail notification ❑ Trade Shows & Courses ❑ Other:_____

General Information

❑ I would like to receive E&G's Powder Notes Newsletter. ❑ Notify me regarding future course offerings.

Registration Fees

Workshops (Please indicate course):
Mon-Tue: ❑ Powder Flow I *or* ❑ Introduction to Powder Processing
Wed-Fri: ❑ Powder Flow II *or* ❑ Granulation & Compaction

Select below as appropriate (Reserve early to ensure your room hold):

		Mon-Tue Workshop: ❑ Powder Flow I ❑ Intro Powder Proc	Wed-Fri Workshop: ❑ Powder Flow II ❑ Gran & Compact
		Fill-in fees as appropriate:	
Course Fees:	❑ Registration course fee and notes. Payment received by January 5, 2009.	**$ 1,450.00**	**$ 1,850.00**
	❑ Payment received after January 5, 2009. **Add $100:**		
	Book by December 23, 2008 to ensure room hold.		
Discounts:	EARLY BIRD: Received by December 8, 2008. **Less 10% ($145 or $185):**		
	OR	**OR**	
	NOTE: Registering for two workshops entitles attendee **Less 15% ($218 or $278):**		
	to a 15% discount. DO NOT INCLUDE EARLY BIRD DISCOUNT AS WELL.		
Accommodation Fees:	❑ Food and lodging, all inclusive:	**$ 550.00**	**$ 775.00**
(Single Occupancy)	Mon-Tue Workshop: Sunday Dinner & Reception thru Tuesday Lunch		
	Wed-Fri Workshop: Tuesday Dinner & Reception thru Friday Lunch		
	Contact Evins Mill for changes to accommodations. Ph: (615) 269-3740		
	Accommodations are offered as an integral part of course structure & are not optional.		
	Overflow/inclement weather lodging arranged as necessary. No walk-in registration.		
	For inclement weather lodging, contact (615)-469-1342 upon airport arrival.		
	Evins Mill/ E&G Adjustments:		
	Indicate arrival time & flight if known. Driving directions available at www.evinsmill.com		
	Indicate any special needs or dietary requirements.		
		Total fee:	
		Add fees above & pay this amount.	

Payment Terms & Conditions

Payment Schedule & Cancellation Policy:
All payments received by January 5, 2009.
Cancellation & late fees apply after
December 19, 2008 as noted above & below.

Note: Rooms held till December 23, 2008.
Book early to ensure a room is held.

Refund Amount for all Fees:
Before December 19, 2008: 100%, less $100
Before December 31, 2008: 50%
After December 31, 2008: 0%

Payment Method:
❑ Company/personal check enclosed. **$150 fee for returned checks.**
❑ Credit card:

Name:	Type:
Number:	Expiration:

Payable to: Evins Mill — Federal Tax ID#: 62-1572629
Cochran Management Company, L.L.C.
2820 Dogwood Place, Suite 102
Nashville, TN 37204 — Ph: (615) 269-3740
Email: william@evinsmill.com — Fx: (615) 269-3740 (call prior to fax)

Registration Process:
1. Fax completed and signed registration form to both (615) 269-3740 & (240) 524-8482.
2. Contact Evins Mill to verify registration, & for special dietary needs & accommodation changes.
3. Mail completed forms/payment, to be received by registration deadline, afterwhich late fees apply.

Attendee Application & Acceptance

Please sign & date below:

Date **Attendee Applicant Signature**

Company Use Only:

E&G Associates, Inc. (E&G) reserves the right to modify course location, venue & accommodations; to decline any course applicant; or to cancel or reschedule course in its entirety due to unforeseen circumstances. In the event of cancellation, participants will be entitled to a full refund of registration fees, with no further obligation on the part of E&G. Final course details & schedule to be provided two weeks prior to course. E&G will invoice for any billing discrepancies. Overflow accommodations arranged as necessary. With above signature, attendee accepts these terms & holds E&G entirely harmless from all liability involving participation at Evins Mill.