

AIChE



The Catalyst

PITTSBURGH CHAPTER
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS



Volume 19 Issue 4



December 2004

www.aichepgh.org

DECEMBER NEWS BRIEFS

Welcome to a special, abbreviated edition of the Catalyst. We wanted to send you some quick news briefs about some of our upcoming events, and wish you and your families a very happy holiday season!

Calendar of Upcoming Events:

Our next two Monthly Meetings will be:

January 2005

Joint Meeting between AIChE and AWMA
Wednesday, January 19, 2005, at the Penn Brewery
Topic: The North Shore Connector Project: The Engineering Issues and Environmental Impact of Constructing a Tunnel Under the Allegheny River.

For more information, please see the attached flier, or the January 2005 Catalyst.

February 2005

Our annual Student Night with the University of Pittsburgh, Carnegie Mellon, Youngstown State, and West Virginia University is scheduled for **Thursday, February 10th**. It will be held in the Kurtzmann Room at the William Pitt Student Union on the campus of the University of Pittsburgh.

Please also mark your calendar for these upcoming volunteer opportunities:

December 2004

Judges are needed for the Rube Goldberg Machine Contest on Friday, December 3rd at the UPMC Sportsworks. Details are on page 3 of this issue.

January 2005

Judges and Presentation Aids are needed for the Future Cities Competition on Saturday, January 15th at the Carnegie Science Center. See page 4 of this issue for details!

A Letter from The Chair

Dear Members,

We had two meetings in close succession this Fall. October's joint meeting with the Society of Women Engineers was a great success. Thanks to our tour guides at the McKeesport Wastewater treatment plant for hosting the October plant tour. On November 4th, we had a second joint meeting, this one with the American Chemical Society. Thomas J. Feeley III (DOE-NETL) gave a presentation on "Mercury Emissions Control Technology." I think these joint meetings are really increasing our exposure in Western Pennsylvania, and I hope we continue to have them in the future. Please send me or David Missenda any suggestions you might have for future joint meetings.

Just a reminder that Student Night is fast approaching, and we will also be hosting our bi-annual McAfee Banquet later in the spring. Details will follow in our next newsletter.

I'd also like to remind all of you that we're looking to get more chemical engineers involved with our section. Let me know if any of you would like to run for office, volunteer, or can suggest meeting locations or topics. Thanks for your continued support of AIChE. Happy holidays!

Best regards,

Jim Schneider
Chair, AIChE Pittsburgh Section



MEMBERSHIP CORNER

Dear Members,

We are constantly updating our local membership database. Please send all change of address notifications to our Membership Chair:

Holly Gray
Michael Baker Jr., Inc.
Airside Business Park
100 Airside Drive
Moon Township, PA 15108

hgray@mbakercorp.com

If you have not already done so, please verify your updated e-mail address with us so that you will continue to receive monthly newsletters!

Thank you!

Please sign me up for the local Pittsburgh Section of AIChE

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

Business Phone _____

Residence Phone _____

Email _____

Annual Dues are \$16.00. Make check payable to "AIChE Pittsburgh Section" and send to our Treasurer:

Leigh Anne M. Wacker,
AIChE Treasurer
337 Quail Run Road
Venetia, PA 15367

AIChE PITTSBURGH SECTION SCHOLARSHIPS

Applications are now available for two \$750 scholarships to be awarded by the Pittsburgh Section AIChE for the 2005-2006 academic school year. Sophomore and junior chemical engineering students are eligible to apply if they:

- *Are enrolled in one of the following chemical engineering programs in the AIChE Pittsburgh Section area: Carnegie Mellon University, University of Pittsburgh, West Virginia University, Youngstown State University*
- *Are enrolled at any AIChE-accredited chemical engineering program in the United States provided that the student is the son or daughter of a member in good standing of both the AIChE and the Pittsburgh Section AIChE.*

*The deadline for submission of an application is **January 14, 2005**. Scholarship recipients will be notified by February 11, 2005.*

For more details or to print out a copy of the application, visit www.aichepgh.org

YOUR PITTSBURGH SECTION AICHE
 OFFICERS AND COMMITTEE CHAIRS
 WOULD LIKE TO
 WISH YOU A
HAPPY HOLIDAY!



THANKS FOR YOUR HELP AT NATIONAL CHEMISTRY WEEK!

Thanks to our volunteers - David Missenda, Peggy Panagopoulos, JoAnn Truchan, Dan Nadzam, and Nancy Hirko!

“On behalf of the Pittsburgh Section of the American Chemical Society, I want to take this opportunity to express our appreciation to you and your organization for participating in the 2004 NCW event. Please pass along our thanks and gratitude to all of those who worked with you and us to make this year's program a success.

There were 259 volunteers, representing thirty-two organizations from across southwestern Pennsylvania, staffing twenty-seven tables with hands-on science experiments, demonstrations, and activities. This includes eight new groups joining with us in the celebration. Attendance for the two days was 4400! Paid attendance for the Carnegie Science Center (how we gauge participation) was 2492 people on Friday and 1941 on Saturday.”

-Michael Mautino
National Chemistry Week Coordinator
Pittsburgh Section ACS



The AIChE's booth this year dealt with how food is broken down by the body, and explained the concept of calories to inquisitive young attendees.

VOLUNTEERS NEEDED FOR RUBE GOLDBERG MACHINE CONTEST!

Volunteers are needed to help judge this year's Rube Goldberg Machine Contest, which is a contest where high school students build a Rube Goldberg machine (think of Mousetrap) to accomplish a task in ten steps or more, then bring their machines to UPMC SportsWorks for a contest. More information on this year's contest is available at www.westinghousenuclear.com/E6.asp.

The contest is on Friday, December 3, 2004 at UPMC SportsWorks on the North Side, and judges get breakfast and lunch provided and free admission to SportsWorks and the Science Center for the day. The contest runs all day, but we need most of our volunteers in the morning. 7:30AM until noon at the earliest, 4PM at the latest (if you want to stay all day). Parking is free. It's really a fun day for the judges! Interested parties can contact Erin Whiting at Westinghouse Electric Company at whitine@westinghouse.com or 412-374-3367. Thanks!



VOLUNTEERS NEEDED AS JUDGES FOR FUTURE CITY COMPETITION

The National Engineers Week Future City Competition™ seeks engineers to volunteer this fall and winter to introduce middle school students across the nation to a career in engineering. Since its founding in 1992, the educational program has made engineering come alive for hundreds of thousands of students.

The Engineers' Society of Western Pennsylvania (ESWP) in conjunction with the Carnegie Science Center will present the 6th Annual Future City Competition in the Pittsburgh area. It is a national program sponsored by the engineering community to promote technological literacy and engineering to middle school students.

The number of Middle Schools that have registered in the Pittsburgh Regional Competition has grown each year. The Competition's growth is testimony to the program's unique capacity to challenge students to learn and test new concepts related to engineering and city planning, to apply the mathematics and science they have already learned, to explore their imaginations about what our Cities will be like in the future, and to build an example of the result using ingenuity and their own hands. However, another important facet of the Pittsburgh Regional Future City Competition that has allowed it to expand is the associated growth of a cadre of dedicated volunteers. Without volunteers, there would be no competition.

Please, volunteer as a Presentation Aide or Judge. During November and December, judges will review the SimCity files and essays. On Saturday, January 15, 2005 the Pittsburgh Regional Competition will be held at the Carnegie Music Hall in Oakland. Based on past experience we anticipate that we will need more than 120 volunteers to fill the positions of Essay Judges, Disk Judges, Registrars, Model Movers,

Room Manager/Timers, Score Keepers, Special Awards Judges, Presentation Judges, Exhibit Area Control Volunteers, Still and Video Camera Operators, and Public Relations Coordinators. Our goal is to identify all volunteers, and make assignments by January 2, 2005. Orientation Meetings for Presentation Aides and Judges will be held as needed in early January.

Please add Your Name to Our 2004-2005 Volunteers List. We welcome the help of anyone who is interested in volunteering his or her time. To qualify as a Presentation Judge, you must have judged before or have attended a Judge Orientation Meeting. If you are interested in registering as a volunteer for the 2005 Future City Competition please take a minute and fill out the

VOLUNTEER REGISTRATION FORM at:

http://www.futurecitypittsburgh.org/futcityvolunteer_form.htm

If you have any questions, call Bill Pruss at (412) 273-7100

NEWSLETTER DEADLINE

THE DEADLINE FOR THE JANUARY 2005 NEWSLETTER IS FRIDAY, DECEMBER 10, 2004.

Please submit information to:

Mariangela Peters
Bayer MaterialScience, LLC
 100 Bayer Road
 Pittsburgh, PA 15205

Phone (412) 777-4195
mariangela.peters@bayermaterialscience.com



AICHE PITTSBURGH SECTION 2004-2005 OFFICERS

Executive Committee

Chair

Dr. Jim Schneider (schneider@cmu.edu)
Carnegie Mellon University
412-268-4394

Vice-Chair & Program

David Missenda (david_missenda@URSCorp.com)
URS Corporation
(412) 503-4620

Secretary

Justin P. Filey (jfiley@ppg.com)
PPG Industries, Inc.
724-274-3529

Treasurer

Leigh Anne M. Wacker (lamwacker@msn.com)
ANSYS, Inc.
724-514-3046

Counselors

John Hauser (hauserjj@prosaf.com)
PROSAF, Inc.
724-942-3717

Dr. Douglas Price (dmprice@cc.yu.edu)
Youngstown State University
330-941-3019

Past Chair & Nominations

Nathan Peters (nrpeters@verizon.net)
412-855-2689

Additional Officers and Chairs

Membership Chair

Holly Gray (hgray@mbakercorp.com)
Baker Environmental, Inc.
412-269-6059

Newsletter Editor

Mariangela Peters
(mariangela.peters@bayermaterialscience.com)
Bayer MaterialScience, LLC
412-777-4195

Engineers' and Chemistry Week

Nancy Hirko (nhirko@air-comp.com)
Air/Compliance Consultants, Inc.
412-826-3636

Scholarship Chair

Ed Moretti (emoretti@moretticonsulting.com)
Moretti Consulting Group, LLC
412-276-2228

Committee Chairs

Safety & Environmental: Shiw Tseng
PE Review: Carl Schwartz

Web Master

Richard Dupree (rrd@telerama.com)
Dupree & Associates
724-775-5122

2004-2005 Monthly Meeting Schedule

Date	Topic	Location
September 23, 2004	Plant Tour	Homer Laughlin – Newell, WV
October 20, 2004	Plant Tour – Joint Meeting w/SWE	McKeesport WWTP
November 4, 2004	Joint Meeting with ACS	ESWP - Pittsburgh
January 19, 2005	Joint Meeting with AWMA	Penn Brewery
February 10, 2005	Annual Student Night	Univ of Pittsburgh - Oakland
March 2005	Technical Presentation	TBA
April 2005	Plant Tour	TBA
May 2005	Last Meeting of Year / Award Dinner	TBA

**THE NORTH SHORE CONNECTOR PROJECT:
THE ENGINEERING ISSUES AND ENVIRONMENTAL IMPACTS OF CONSTRUCTING A TUNNEL
UNDER THE ALLEGHENY RIVER**

**GREGORY R. YATES, P.E., VICE PRESIDENT, DMJM+HARRIS
HENRY M. NUTBROWN, P.E., ASSISTANT GENERAL MANAGER OF ENGINEERING AND
CONSTRUCTION DIVISION, PORT AUTHORITY OF ALLEGHENY COUNTY**

DINNER MEETING AND SOCIAL

Presented by

**Air & Waste Management Association, Allegheny Mountain Section
American Institute of Chemical Engineers, Pittsburgh Section
American Academy of Environmental Engineers, Western Pennsylvania Section**

**Penn Brewery, Troy Hill and Vinal Street (North Side), Pittsburgh, Pennsylvania
Wednesday, January 19, 2005, 4:00 - 8:00 p.m.**

Expansion, redevelopment, and future economic development efforts within Downtown Pittsburgh and along the North Shore have renewed interest in a public transit investment to serve this corridor. Since January of 1999, Port Authority of Allegheny County has undertaken environmental analysis, planning, design and engineering of a transit investment proposing to link together the Golden Triangle and Pittsburgh's North Shore.

The North Shore Connector project will extend Port Authority's 25-mile Light Rail Transit system, the T, 1.2 miles from the Gateway Subway Station underneath Stanwix Street and the Allegheny River – in twin bored tunnels below the river - to the North Shore. While remaining underground along the North Shore, the alignment would travel adjacent to Bill Mazerowski Way accessing a station near PNC Park. Continuing below grade adjacent to Reedsdale Street, the alignment will transition to an elevated alignment near Art Rooney Avenue to a station along Allegheny Avenue near Heinz Field before terminating near the West End Bridge. A .3-mile light rail line from the Steel Plaza Subway Station to a subway station at the new and expanded David L. Lawrence Convention Center will also be constructed.

With the FEIS and preliminary engineering work complete, Port Authority is concluding final design on the North Shore Connector. Port Authority is expected to begin construction in 2005. The North Shore Connector could be complete and operational in 2008.

Mr. Yates and Mr. Nutbrown will discuss the North Shore Connector project including the engineering issues and environmental impacts of constructing a tunnel under the Allegheny River and other related issues to this large transportation project.

AGENDA

- 4:00 Registration**
- 4:30 Welcome & Program Introduction – A&WMA AMS Program Committee**
- 4:40 The North Shore Connector Project - Gregory R. Yates, P.E., DMJM+Harris and Henry M. Nutbrown, P.E., Port Authority of Allegheny County**
- 5:15 Questions, Answers, and Discussion**
- 5:30 Tour of Penn Brewery – Brewmaster Tom Pastorius will provide a tour of the Penn Brewery.**
- 5:45 Dinner and Social – Technical and social conversation amidst a dinner of German specialties, beer, and soft drinks.**
- 8:00 Adjournment**

Can't make it? Pass this flyer on to someone else who can!

----- Registration Form -----

SPACE IS LIMITED – PLEASE REGISTER BY JANUARY 14, 2005

1. Please circle and enclose applicable fee.

Member of A&WMA/AIChE/AAEE	\$35
Non-Members	\$45
Students	\$25

2. Registration Information:

Name: _____ Title: _____
Company: _____
Address: _____ City: _____ State: _____ ZIP: _____
Phone: (_____) _____ Fax: (_____) _____ Email: _____

Proceeds will benefit local A&WMA and AIChE scholarship and education programs. Please return this form with check payable to A&WMA to Ed Moretti, Moretti Consulting Group, 314 East Main Street, Carnegie, PA 15106. You may also register instantly by fax at 412/276-2233 or via e-mail at emoretti@moretticonsulting.com and send check separately prior to event.

Program Announcement and Invitation

**MR. GREGORY R. YATES, P.E. VICE PRESIDENT, DMJM+HARRIS
MR. HENRY M. NUTBROWN, P.E., ASSISTANT GENERAL MANAGER OF
ENGINEERING AND CONSTRUCTION DIVISION, PORT AUTHORITY OF
ALLEGHENY COUNTY**

**THE NORTH SHORE CONNECTOR PROJECT:
THE ENGINEERING ISSUES AND ENVIRONMENTAL IMPACTS OF
CONSTRUCTING A TUNNEL UNDER THE ALLEGHENY RIVER**

**Presented by
Air & Waste Management Association, Allegheny Mountain Section
American Institute of Chemical Engineers, Pittsburgh Section
American Academy of Environmental Engineers, Western Pennsylvania Section**



**Penn Brewery
Troy Hill and Vinial Street (North Side)
Pittsburgh, Pennsylvania
Wednesday, January 19, 2005, 4:00 - 8:00 p.m.**