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March 2002

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## ASCE 150<sup>TH</sup> ANNIVERSARY – PLANNING THE CELEBRATION

By Craig F. Butler, P.E.

Our Society's 150<sup>th</sup> Anniversary plans are fully underway at both the national and local levels. Here's the latest news from each of the Syracuse Section anniversary committees:

- Participation in the ASCE-sponsored West Point Bicentennial Engineering Design Contest is continuing at a strong pace. As of mid-February, teams from Chittenango have submitted three designs that are currently listed in the "Top Ten Scoreboard" for our zone! With the deadline for the first round of competition concluding on February 28, 2002, the odds look good that our Section will be well represented in the nationwide contest. Of course, this column will feature updates as additional rounds of the competition are conducted. In the meantime, keep up the great work, teams!!
- A recap of the Building Big II, "Build-A—Thon" event held in late January at Onondaga Community College indicates that the success of the inaugural event was repeated. This success could not have been accomplished without the teamwork of the Syracuse Area Building Big Coalition, lead by the primary event coordinator Pete Headd, Director of Lifelong Learning at WCNY.

Other significant contributors to the event included members of the ASCE Syracuse Section Board of Directors, including our President Chuck Stanton, as well as our supporting colleagues in the Syracuse area Technical Societies Council (TSC). The event coordinating committee members (Al Brandenburg, Bill Busher, Mike Hayes, Jim Ruddock, and Tom Frawley) deserve special kudos, along with all the adult volunteers and teachers who participated in the event. Of course, the highest praise goes to the students who brought all their energy and creativity into making this event so special. Additional details of the Build-A-Thon are provided elsewhere in this edition of the Technologist.

- A review of the fourth annual "Celebration of Technology" Exhibition Expo and Banquet, held on March 1<sup>st</sup> at the Holiday Inn Convention Center in Liverpool, will be provided in next month's

newsletter. I hope that you were able to attend this event, which is now becoming an annual tradition in the Central New York technological and engineering community.

- Additional plans on the horizon for our Section's sesquicentennial celebrations include an area "beautification project", hosting of the regional ASCE Student Chapter concrete canoe and steel bridge competitions at Syracuse University, recognition of local civil engineering "historical landmarks", and a golf tournament. Stay tuned for further details on these events.

Now that 2002 has arrived, we have an exceptional opportunity to take advantage of the special events associated with the 150<sup>th</sup> Anniversary of our Society. We should all be proud of our role as civil engineers, and as ASCE members. As always, please contact me or any other member of the 150<sup>th</sup> Anniversary committees, for further information and to **GET INVOLVED** in these noteworthy events.

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## THE ENVIRONMENTAL CORNER

By Todd M. Musterait, P.E.

### *New Process Treats Remedial Air Emissions*

Many technologies designed to remove chlorinated volatile organic compounds (VOCs) from soil and groundwater (e.g., soil vapor extraction and air stripping), discharge the extracted VOCs into the air. Air emission regulations often prohibit these discharges, requiring the emissions to be treated to remove the VOCs. AIR2000, developed by KSE, Inc., is a new technology being tested under the EPA's Superfund Innovative Technology Evaluation (SITE) Program. It has been found to be very effective in bringing these VOC emissions within regulatory limits.

The AIR2000 process uses a demister, to remove water from the emission, a photocatalytic reactor to break down the VOCs using ultraviolet light, a second demister to remove hydrogen chloride created during the VOC breakdown at high chlorinated VOC concentrations, and a second photocatalytic reactor. In the SITE program test, conducted over three months at a Superfund site in Rhode Island, the primary VOC in the gas was trichloroethene (TCE). The AIR2000 process consistently removed over 99.5 percent of the TCE (and over 98.5 percent of the total VOCs), bringing the levels to within the state emissions limits. System performance was found to be stable throughout the test.

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## HISTORY & HERITAGE COMMITTEE

By Jim Tyler

Civil engineer Oswego native William B. Cogswell is arguably the father of the alkali chemical industry in America and its' birthplace was in the fields of Geddes along Milton Avenue where Solvay Paperboard is located. There follows a three part history of The Solvay Process.

### **A Bit of History-Part 1**

In 1861, Ernest Solvay began his study of the ammonia soda process for the manufacture of soda ash. At that time the LeBlanc process was in universal use, but it was inefficient and the product was of low purity.

After years of development, Ernest Solvay, with his brother Alfred, built and operated the first commercially successful ammonia soda plant at Coulliet, near Brussels, Belgium. The success of this plant soon convinced them that their process would soon replace the LeBlanc method.

As late as 1880, no soda ash was produced in the United States, the requirements being imported from England.

In 1879, William B. Cogswell, a mining and metallurgical engineer, attended a meeting of the American Institute of Mining Engineers near Philadelphia, where he heard a paper which described the ammonia soda process.

Mr. Cogswell was impressed by the fact that all the raw materials needed for this new process were available in central New York. Based on his faith in the possibilities of producing soda ash in the United States, Mr. Cogswell went abroad and spent many months negotiating for plans to erect a plant in central New York.

Continued in April.

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## ASCE 2002 ZONE 1 LEADERSHIP CONFERENCE

**When:** January 18-20, 2002

**Where:** Hastings Hotel - Hartford, Connecticut

**Attending Sections and Branches:** Boston, Buffalo, Central Pennsylvania, Connecticut, Delaware, Ithaca, Lehigh Valley, Maine, Maryland, Metropolitan, Long Island, National Capital, New Hampshire, New Jersey, New Jersey – Central, New Jersey – North, New Jersey – South, Philadelphia, Syracuse, and Vermont.

Also attending were Young Member Societies and Student Chapters within Zone 1. Joe Way (Director) and Matt Millias (President-Elect) represented the ASCE Syracuse Section.

### **Major Themes:**

#### *Raising the Bar for the Profession*

- First Professional Degree – ASCE National is backing a Masters Degree Equivalent [Technical Masters degree, qualifying courses adding up to a masters, potentially an MBA, potentially Public Service credits] as a requirement for a PE license. Still in the concept phase; implementation could be very difficult. Other engineering societies not necessarily supporting ASCE.
- Continuing education – Controlled by individual states. NY has not approved a proposed continuing education plan to date.

#### *Raising the Public's Awareness of Civil Engineers*

- 150<sup>th</sup> Campaign [West Point Bridge Contest, Building Big, Zoom]

- National publicity campaign to recognize civil engineers as emergency respondents to the 9/11 tragedy
- 2002 Engineer's Week
- Mentoring program

*Becoming an Influence in Society*

- ASCE National has a large membership [125,000 Members] with a sizable paid staff to support the elected officials and a sizable budget [~\$50M] to work with.
- Lobbying in Washington, D.C.
- Key Contact Program
- Report Card on the nation's infrastructure

*Demonstrating what ASCE National can Offer*

- Career Resources: Job Listings, 2002 Salary Survey, Network Opportunities to 85 Sections and 155 Branches, Committee Opportunities, Continuing Education Opportunities with Conferences and Classes, and On-Site Training Opportunities.
- Public Service
  1. Zoom into Engineering Program in conjunction with PBS – geared toward elementary students
  2. Building Big Program – geared toward Middle School students
  3. West Point Bridge Contest – geared toward High School students
  4. Habitat for Humanity
  5. Support for a variety of local public service activities [Adopt-A-Highway, beautification projects, feed the hungry programs, etc.]
- Technology and Information
  1. [www.asce.org](http://www.asce.org)
  2. ASCE News
  3. Civil Engineering Magazine
  4. E-News
  5. Free Virtual Conferencing (rolling out in July 2002)
  6. On-line Journals
  7. Civil Engineering Research Foundation

- Personal and Financial Benefits
  1. Life and Health Insurance
  2. Small Business Group Insurance
  3. Professional Liability Insurance
  4. MBNA Credit Card and Investor Series
  5. Financial Service Program with Licensed Professional
  6. Car Rental Program
  7. ResumeMatch@

### ASCE SYRACUSE SECTION 2001 – 2002 PROGRAM SCHEDULE

<b>Date</b>	<b>Event</b>	<b>Place</b>	<b>Information</b>
<i>First Tuesday of Each Month</i>	<i>ASCE Syracuse Section Board Meetings</i>	<i>C&amp;S Engineers Building</i>	<i>5:15PM; Food/Beverages Provided</i>
March 1, 2002	Technology Week Expo and Banquet	Holiday Inn Liverpool	Keynote Speaker: Pam Newberry (NASA) Topic: Technology for All Americans Project
April 12-13, 2002	Ice-Breaker Reception Concrete Canoe/Steel Bridge Contest Banquet	SU/Onondaga Lake Park	Students from SU, Clarkson, Cornell, RPI, Union, USMA, SUNY-Buffalo, RIT, etc. will compete, have dinner, and meet local firms
May 4, 2002	Adopt-A-Highway	I81 north of Lafayette Exit	Meet at 9:00AM in McDonald's parking lot
June 7-8, 2002	Syracuse SkyChiefs Game/Picnic	P & C Stadium	Food and drinks within the rightfield picnic area during a SkyChiefs vs. Norfolk Mets Game
June 22, 2002	Adopt-A-Highway	I81 north of Lafayette Exit	Meet at 9:00AM in McDonald's parking lot
August 24, 2002	Adopt-A-Highway	I81 north of Lafayette Exit	Meet at 9:00AM in McDonald's parking lot
September 2002	2 <sup>nd</sup> Annual ASCE Syracuse Section Golf Tournament	TBD	TBD

**NORTH AMERICAN GEOSYNTHETICS SOCIETY**  
**PAST PRESIDENT'S SEMINAR ON**  
**GEOFOAM IN HIGHWAY AND BRIDGE APPLICATIONS**  
**WEDNESDAY, MAY 15, 2002**

This one-day seminar, cosponsored by the Geofoam Research Center at Syracuse University, Syracuse, NY, will present an overview of the uses of geofoam in highway and bridge construction. It is being held as part of the North American Geosynthetics Society (NAGS) educational program on the uses of geosynthetics. The seminar will feature the speakers listed below, plus the opportunity to tour the geofoam testing facilities of the Geofoam Research Center.

The opening keynote speaker will be Dr. Richard Bathurst; Royal Military College, Kingston, Ont., Canada; President, International Geosynthetics Society; Past President, North American Geosynthetics Society.

Seminar Specifics:

Hotel: Sheraton University Hotel and Conference Center - Syracuse University - Tel. No. 315-475-3000

Reservation Cutoff Date: April 16, 2002

Rooms Held Under: North American Geosynthetics Society

Room Rate: \$109 Single, \$119 Double

Registration Fee:

NAGS Members - \$125.00

Non- NAGS Members - \$150.00

Registration fee includes attendance at the seminar, breakfast and lunch on May 15<sup>th</sup>, and any handout materials from the speakers.

For inquiries or more information, please contact: Kelly Rojas, NAGS Managing Director,

Email: [nagsinfo@nagsigs.org](mailto:nagsinfo@nagsigs.org), Tel. 705-434-0180.

**Registration Form**

REGISTRATION FEE:	NAGS Members	\$125.00
	Non NAGS Members	\$150.00

REGISTRANTS INFORMATION:

Dr. <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/>	Name:	
Title:		
Company:		
Address 1:		
Address 2:		City:
State/Province:	Zip/Postal Code:	Country:
Phone:		Fax:
e-mail:		

PAYMENT INFORMATION

Check in the amount of \$ \_\_\_\_\_ is enclosed. (Full payment is due prior to the seminar).

**Visa** (*preferred*) Card Number \_\_\_\_\_

Mastercard Expiration Date \_\_\_\_\_

Total Amount \_\_\_\_\_

Signature \_\_\_\_\_

NOTE: Due to limited seating, registrations will not be confirmed until we receive full payment.

CANCELLATION POLICY: Cancellations received more than 20 days before the start of the seminar will receive a full refund. Registrants who do not attend a seminar or who cancel within 20 days of the start of the seminar must pay the entire registration fee. Substitutions of participants are allowed at any time without penalty.

HOTEL RESERVATIONS: Attendees can call 315-475-3000 to book a room at the Sheraton University Hotel and Conference Center. Rooms are held under the North American Geosynthetics Society. The reservation cutoff date is April 16, 2002. Room rate \$109 Single, \$119 Double.

Please call Kelly Rojas at 705-434-0180 with questions or comments.

Send payment to North American Geosynthetics Society, P.O. Box 329, Alliston, ON L9R 1V6 Canada

or fax to: 705-434-4353.

All prices are in US Dollars