SWANA’s 35th Annual

LANDFILL GAS SYMPOSIUM

March 19-22, 2012
Gaylord Palms • Orlando, FL
www.lfg.swana.org

The World’s Premier Forum on Landfill Gas Utilization & Technology!

www.lfg.swana.org
Monday, March 19, 2012

7:00am – 6:00pm  
Registration Open

7:30am – 1:00pm  
Golf Tournament
Falcon’s Fire Golf Club is a Rees Jones designed championship golf course recognized both regionally and nationally as one of the finest public golf courses in Orlando. From an immaculate golf course featuring the highest level of service and amenities, to the exquisite dining at the Falcon’s Nest Restaurant, to the latest technology, equipment, and apparel at the award-winning Golf Shop, Falcon’s Fire Golf Club is a premier Florida golf destination.

To attend this event, please download a registration form at www.lfg.swana.org under the Golf Tournament heading.

8:00am – 5:30pm  
SWANA Training Courses

Landfill Gas Basics 1-Day Course
Increase your understanding of landfill gas basics with this introductory course. Become familiar with system design, construction and monitoring while also learning about the importance of landfill gas control and utilization.

Landfill Gas Systems Operation and Maintenance 1-Day Course
Learn best practices and procedures for both the operation and maintenance of landfill gas collection and control systems.

2:00pm – 2:50pm  
Landfill Gas Management Technical Division Committee Meetings
• Generation and Modeling Committee  
• Utilization Committee

2:00pm – 3:50pm  
Joint Rules/Regulations Committee and Advocacy Committee Meeting

3:00pm – 3:50pm  
Landfill Gas Management Technical Division Committee Meetings
• Extraction and Control Committee  
• Field Practices Committee

4:00pm – 5:00pm  
SWANA’s Landfill Gas Management Technical Division Meeting

6:00pm – 8:30pm  
Welcoming Reception & Trade Show Opening

Tuesday, March 20, 2012

7:30am – 8:30am  
Continental Breakfast in the Exhibit Hall

8:30am – 8:45am  
Opening Remarks
Amy Banister, Director, LFGM Technical Division and Senior Director, Air Programs, Waste Management, Inc., TX
Steve Hamilton, Vice Director, LFGM Technical Division and Vice President, SCS Energy, GA

8:45am – 9:30am  
Keynote Presentation
Jim Becker, Director of Solid Waste, Orange County Solid Waste Division, FL

9:30am – 10:30am  
Break in the Exhibit Hall

10:30am – 12:00pm  
SESSION 1: Rules and Regulations
The Effects of New Air Modeling Standards on Landfill Gas Projects
Patrick S. Sullivan, Senior Vice President, SCS Engineers, CA

Compliance with New Air Regulations and Air Quality Standards and the Challenges Facing MSW Facilities
Brian A. Storey, Senior Engineer, Golden Associates, Inc., FL

The Regulatory Environment for Biogas: Unraveling AB 32 and Other State Legislations
Reema Parvez, Director, Element Markets, LLC, TX

12:00pm - 1:30pm  
Lunch in the Exhibit Hall

1:30pm – 3:00pm  
SESSION 2: Landfill Gas Treatment

Hydrogen Sulfide Remediation at King George County Landfill, King George, Virginia
William Tennant, Operations Manager, Waste Management, Inc., VA

Evaluation of the Relative Performance and Economics of Membranes Versus Pressure Swing Adsorption Technology for Pipeline Quality Gas Plants
Jeffrey Pierce, Senior Vice President, SCS Energy, CA

New Day, New Challenges at the Cape May County Landfill: Condensate and Sulfur Treatment Strategies to Respond to Changing Landfill Dynamics
John Baron, PE, Solid Waste Program Manager/Deputy Director, Cape May County Municipal Utilities Authority, NJ

2:00pm – 4:00pm  
Landfill Gas Management Technical Division User Group Meetings
• High BTU User Group  
• CAT 3520 User Group  
• Gas Treatment User Group

3:00pm – 4:00pm  
Break in the Exhibit Hall

4:00pm – 5:30pm  
SESSION 3: Renewable Fuels

Sonoma Landfill Gas to Vehicle Fuel Demonstration Project: Final Report
Arnold Ramirez, Project Manager, SCS Energy, CA

Update on the High Mountain Fuels LFG to LNG Conversion Project at Waste Management’s Altamont Landfill
Chuck White, PE, Director of Regulatory Affairs/West, Waste Management, Inc., CA

Lessons Learned in Developing and Operating a Small Landfill Gas to CNG Vehicle Fuel Project
Mark J. Torreani, Senior Project Engineer, Cornerstone Environmental Group, LLC, WI

6:00pm – 7:00pm  
Tuesday Evening Reception

7:00pm – 8:00pm  
Tuesday Evening Dessert Reception
Wednesday, March 21, 2012

7:30am – 5:00pm
Registration Open

8:30am - 10:00am
SESSION 4: Case Studies on Improving Landfill Gas Extraction
Horizontal Gas Wells that Last: A Case Study of Performance
Samuel A. Dean, Project Manager, EarthRes Group, Inc.
Let’s Install It Once: Case Study on Caisson Wells
Kyung Kho, Professional Engineer, Cornerstone Environmental Group, LLC, IL
Air Injections to Mitigate Methane in Perimeter Probes at an Active Southern California Landfill
Chris Lieder, Project Geologist, Geosyntec Consultants, CA

10:00am - 10:30am
Sponsored Break

10:30am - 12:00pm
SESSION 5: Landfill Gas-to-Energy Contracts
Getting the Deal Done: Resolution Alternatives for Common Business Issues in Landfill Gas-to-Energy Projects
Matthew D. Katz, Partner, Katz, Barron, Squeri & Feust, P.A., FL
Predicting and Preventing Conflicts Between Landfill Owners and LFG Project Developers
Freddi L. Greenberg, Attorney at Law, Freddi L. Greenberg Attorney at Law, IL

12:00pm - 1:30pm
Lunch & Presentation of the Distinguished Individual Achievement & Hall of Flame Awards

1:30pm - 3:00pm
SESSION 6: Multi-Phase Project Development
Leaping Forward to Energy Recovery: Increasing Your GCCS Output and Removing Sulfur to Bring an Energy Project Online
Maura Dougherty, Senior Client Manager, Cornerstone Environmental Group, LLC, CA
DeKalb County Landfill Gas to Compressed Natural Gas Project
Billy Malone, S.C., Assistant Director, DeKalb County Sanitation Division, GA
New Combined Medium-BTU Direct Use and Power Generation Project at the Spartanburg County Landfill in Wellford, SC
Steve Hamilton, Vice President, SCS Energy, CA

3:30pm - 5:30pm
SESSION 7: Emissions Measurement and Modeling
A New Field: Validated Model for Site-Specific Landfill Methane Emissions
Jean E. Bogner, PhD, Research Professor, University of Illinois at Chicago, IL
Estimation of Landfill Gas Emissions and Collection System Efficiency Using Surface Flux Chamber Technology: A Case Study of Puente Hills Landfill
Jilei Shan, Project Engineer, County Sanitation Districts of Los Angeles County, CA
Quantifying Landfill Methane Emissions Using Novel Field Measurement Techniques
Roger Green, Senior Scientist, Waste Management, Inc.
An Improved Model to Predict Gas Generation from Landfills Based on Waste Composition, Rainfall and Ambient Temperature
Richa Kanujia, PhD Candidate, University of Texas at Arlington, TX

6:00pm - 7:30pm
Wednesday Evening Reception

Thursday, March 22, 2012

7:30am – 12:00pm
Registration Open

8:30am - 10:00am
SESSION 8: Landfill Gas Collection and Control System Operations
Noise Attenuation Controls at Glenbrook Landfill Site, City of Hamilton, Ontario
Rob Conley, S.C., Supervisor of Landfills, City of Hamilton, ON
Your Landfill is Hot! An Investigation into Elevated Temperatures Found in Landfill Gas Wells
Joel Miller, Environmental Engineer, HDR Engineering, Inc., TX
NSPS and Remedial Gas Systems at a High-BTU Landfill: A Case Study
Jay Martin, Project Manager, Cornerstone Environmental Group, LLC, KS

10:30am - 12:00pm
SESSION 9: Landfill Gas Utilization Case Studies
Going Abroad with Landfill Gas Energy: Taking the Success of Direct Use in the United States to the International Community
Victoria Ludwig, LMO Program Manager, US Environmental Protection Agency, DC
One County’s Journey to Successful Self-Development of a LFGE Project
Joe Wieman, Vice President, Camp Dresser & McKee, Inc., GA
Landfill and Digester Gas: Maximizing the Combined Heat and Power for the City of Midland, MI
Doug Tholo, Vice President Methane to Energy, HR Green, MN

S.C. designates SWANA Certification
12:30pm - 5:00pm Facility Tour: Orange County Utilities/Orlando Utilities Commission (OUC) Curtis Stanton Energy Center

In partnership with Orange County, OUC captures methane emissions from county landfill cells and pipes it to Stanton Energy Center where it is co-fired with coal. In addition to helping reduce greenhouse gas emissions from the landfills, the 8-megawatt (MW) green energy program displaces more than 3 percent of the fossil fuel required for SEC Units 1 and 2 and provides enough electricity every day for 10,000 homes. The OUC facility at the Orange County Landfill produces more than 100,000 MWH of reduced-emissions power - offsetting about 44,000 tons of coal each year.

TECHNICAL PROGRAM

Exhibit at the Landfill Gas Symposium!

SWANA’s Annual Landfill Gas Symposium draws over 600 attendees each year, making it the ideal venue for promoting your company’s products and services to your target audience.

Trade Show Hours:
Monday, March 19
6:30 am – 8:30 am – Continental Breakfast
9:30 am – 10:30 am – Break
12:00 pm – 1:30 pm – Lunch
3:00 pm – 4:00 pm – Break

Tuesday, March 20
7:30 am – 8:30 am – Continental Breakfast
9:30 am – 10:30 am – Break
12:00 pm – 1:30 pm – Lunch
3:00 pm – 4:00 pm – Break

Get noticed! Sponsor the Symposium!

Increase your company’s name recognition and publicize your product, service or technology by sponsoring a breakfast, break, lunch, the conference program or a variety of other events.

For additional information on pricing and to reserve your exhibit space or sponsorship, contact Rich Ryan at 330-686-0353 or via email at exhibits@swana.org.

To view current exhibitors and the floor plan, visit shows.swana.org.

Exhibitor Information

Hotel Information

6000 West Osceola Parkway
Kissimmee, FL 34746

Room Rate:
$189 S/D plus $15 resort fee

Cut-off date: February 10, 2012

Reservations: Contact VIP Meetings at reservations@vipmeetings.com or 800-926-3976.

Conference Pricing

SWANA’s 35th Annual Landfill Gas Symposium Pricing

Become a SWANA Member and Save on Your Registration!

<table>
<thead>
<tr>
<th>SWANA Membership Options</th>
<th>Private Sector Individual - $343</th>
<th>Small Business Individual - $243</th>
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<tbody>
<tr>
<td>Public Sector Individual - $183</td>
<td>Student - $62</td>
<td>Retired - $72</td>
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Symposium Registration

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<thead>
<tr>
<th>For student member pricing, call (800) 467-9262</th>
<th>Members with Hotel Rebate by 1/15/12</th>
<th>Non-Member with Hotel Rebate by 1/15/12</th>
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<tbody>
<tr>
<td>Full registration - Includes a ticket to the Monday Night Reception, access to all technical sessions, exhibit hall and lunch tickets for Tuesday &amp; Wednesday</td>
<td>$800</td>
<td>$1,126</td>
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<tr>
<td>Tuesday Only - Includes technical sessions and exhibit hall access on Tuesday only and Tuesday lunch ticket</td>
<td>$476</td>
<td>$576</td>
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<td>Wednesday Only - Includes technical sessions on Wednesday only and Wednesday lunch ticket</td>
<td>$476</td>
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<td>Thursday Only - Includes technical sessions on Thursday only</td>
<td>$309</td>
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Training Course Registration

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<thead>
<tr>
<th>LFG Basics</th>
<th>LFG Systems Operation and Maintenance</th>
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<tr>
<td>$335</td>
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Combined Registration – SAVE $$$!

| Full Registration & LFG Basics | $1,000 | $1,476 |
| Full Registration & LFG Systems Operation | $1,000 | $1,476 |
| Welcoming Reception (1 ticket included in full registration) | $200 | $300 |

Facility Tour: Orange County Utilities/Orlando Utilities Commission (OUC) Curtis Stanton Energy Center

Reserve your hotel room at the Gaylord Palms by January 15, 2012 and save on your registration!

Special Offer!

Register online at www.lfg.swana.org.
A downloadable registration form is also available at this site.

1. Reserve your hotel room online at www.lfg.swana.org or call VIP Meetings at 800.926.3976 by January 15, 2012.
2. Save a copy of your hotel confirmation email from VIP Meetings which will contain your priority code. (Confirmations may take one business day to arrive in your inbox.)
3. Register for the conference online at www.lfg.swana.org and enter your priority code.
4. The discount will be automatically deducted from your registration rate.

Terms & Conditions:

- You must enter the priority code to receive the discount.
- You must register for the conference online.
- Cancelling your hotel reservation will result in an increase of your registration fees.
- This offer is not valid with any other offers or discounted registrations.
- This offer ends at 11:59 PM Eastern Time on January 15, 2012.

QUESTIONS? Please contact SWANA’s Division and Conference Programs Department at 1-800-GO-SW ANA or email: dcpd@swana.org