



Bi-State Chapter Exchanger

Volume XXV, Issue 10

Serving the Hudson Valley and Western Connecticut

June 2012

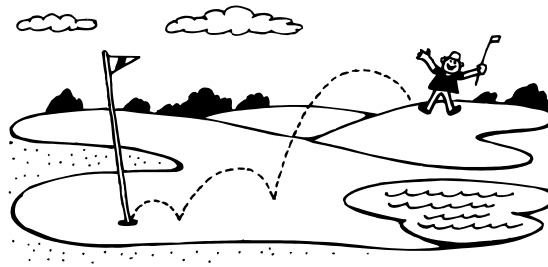
Upcoming Events

- **August 23 — 25**
ASHRAE Region I
Chapters Regional Conference
Boston, MA

Inside this issue:

President's Message	2
Historical Note	2
Research Promotion	3
Officers and Governors Directory	5
Region I Executive Committee	6
Employment Ads & Sponsorship	8
Next Meeting Information	9
Golf Outing	10-11
CRC Information	12-13

2012 Bi-State Chapter Annual Golf Outing



Wednesday, June 20

Same Great Location: The Links at Union Vale
153 North Parliman Road
Union Vale, New York 12540

www.thelinksatunionvale.com

For more information please contact sabbattista@olace.com

If payment is not received prior to the outing your reservation may not be accepted.

18 Hole Championship Golf Course

- 11:30 am: Check-In/Lunch
- 1:00 pm: Shotgun Start
- 6:00 pm: Dinner and Awards

Event Costs:

- \$200 per player
- \$750 per foursome
- \$65 for dinner only

President's Message

By Nicholas Salomone

Thank you all for making this another great Bi-State year! We've enjoyed great presenters, great presentations and a great audience at all of our meetings. As our chapter gears up for the 2014 CRC, we will continue to provide the latest presentations showcasing cutting edge developments in HVAC. I'm looking forward to concluding this year with the golf outing at Links in Union Vale and am excited for John Fusco's programs next year!

Nicholas Salomone
Bi-State Chapter President

Historical Note — Bob Roston, Bi-State Historian Ice Is Your Friend

"In workshops, composing rooms, counting houses, workmen, printers, clerks have their daily supply of ice. Every office, nook or cranny, illuminated by a human face, is also cooled by the presence of his crystal friend... It is as good as oil to the wheel. It sets the whole human machinery in pleasant action, turns the wheels of commerce, and propels the energetic business engine.... It is considered by physicians as a tonic, but an excess, as in the use of intoxicating liquors, will, in all probability produce diarrhea."

— *DeBow's Review*, 1855

ASHRAE Launches New Terminology Site — ASHRAEwiki

Common definitions for terms found in ASHRAE standards and other publications can now be found at a new website from the Society. The free ASHRAEwiki is located at www.ashraewiki.org and contains over 6,000 terms related to buildings with a particular focus on mechanical, envelope, electrical, lighting, load calculations, design, water design/conservation and energy use and measurement metrics.

"Common terminology in communications and particularly in standards helps users in their understanding, thus encouraging adoption and use," Art Hallstrom, a member of ASHRAE Technical Committee 1.6, Terminology, said. "The ASHRAEwiki goal is to improve communication by encouraging the use of consistent terminology definitions within ASHRAE and the industry, worldwide." The new ASHRAEwiki can create custom reports of terms and primary definitions that will aid in the development of standards, guidelines, Handbooks and other ASHRAE publications. With time, it may have broader use across the industry, according to Hallstrom.

Each term in the wiki has one or more primary (recommended) definitions, in which ASHRAE standard(s) the term is used, the definition source and known legal information such as trademark registration. The wiki also lists any secondary definitions used in an ASHRAE standard or guideline, which will help with the development of consistent standards. "There is no requirement to use an ASHRAEwiki primary definition, but standards developers should be able to see the value in consistency across all standards," Hallstrom said.

ASHRAEwiki terms are grouped by words, symbols, abbreviations and acronyms. Definitions that include units may use Inch-Pound (I-P) or International System (SI) as primary units. ASHRAEwiki is in English but might be expanded to other languages in the future.

"ASHRAEwiki content is controlled by the ASHRAEwiki editors and TC 1.6 but suggestions from individuals or organizations are welcome," Bruce Billedeaux, TC 1.6 vice chair, said. "Suggestions can be entered in the wiki discussion section or sent to the ASHRAEwiki editor."

ASHRAEwiki replaces a proposed ASHRAE Standard, Standard 166P, Heating, Ventilating, Air-Conditioning and Refrigerating Terminology, which had been proposed to offer uniform terminology for use in the HVAC&R industry.

Research Promotion Contribution Form

PLEASE COMPLETE THE INFORMATION BELOW AND RETURN WITH YOUR CONTRIBUTION TO:

Terry Connor
Johnson Controls
8 Skyline Drive
Hawthorne, NY 10532

Phone: 914-593-5223 Fax: 914-593-5201

Please accept my research investment in the amount of \$_____

Make checks out to **ASHRAE Research**.

Name_____Member #_____

Company_____Chapter Bi-State_____

Address_____

City_____State_____Zip_____

Please check one: () Personal contribution

 () Company contribution

Charge my gift to: () Visa () Master Card () American Express

Credit Card #_____Expiration Date_____

Signature_____

Donors are recognized for their contributions as follows:

Honor Roll contributors are listed in the October ASRHAE Journal and receive the commemorative coin recognizing Giants in HVAC&R invention or innovation.

Individual Honor Roll beginning at \$100

Corporate Honor Roll beginning at \$150

Investors with contributions of \$250 or more receive a wall plaque that can display six commemorative coins.

Contributions in any amount are gratefully received and 100% of the contribution goes directly to research. All contributions are tax deductible.

Guidance on Variable Refrigerant Flow Systems Included in New ASHRAE Handbook

New guidance on variable refrigerant flow is featured in ASHRAE's new 2012 Handbook volume. The 2012 ASHRAE Handbook – *HVAC Systems and Equipment* discusses systems and the equipment that comprises them, including features and differences. It is designed to help system designers and building operators select and use equipment. It contains 52 chapters.

Chapter 18, Variable-Refrigerant-Flow (VRF) Systems, describes these systems, their components and applicable standards in detail, and includes a system design example and important guidance on costs, controls and safety. In previous volumes, variable refrigerant flow was covered in the unitary products section.

“This new chapter covers the A to Z of variable refrigerant flow – from application of VRF to understanding how VRF works and from analyzing a building load in terms of VRF to zoning with VRF,” Paul Doppel, chair of ASHRAE's technical committee on variable refrigerant flow that wrote the chapter, said. “The chapter offers an excellent overview of VRF technology, including discussion about 2-pipe and 3-pipe system performance during heating operations.”

The chapter also includes a section that lays out a process for designing with VRF including a load analysis, as well as discussions regarding system expansion and designing systems to meet ASHRAE standard requirements.

“Since VRF systems can connect more than 100 percent nominal capacity of indoor units (up to 150 percent in some cases), the chapter also addresses shows how VRF can be used to satisfy changing building conditions with smaller capacity systems by using building diversity and multiple indoor units,” Doppel said.

Other highlights in the 2012 volume:

- Chapter 12, District Heating and Cooling, has an extensive new section on economic comparisons, plus several new detailed examples.
- Chapter 17, Ultraviolet Lamp Systems, has new results from ASHRAE research project RP-1509 on degradation of materials irradiated by UVC energy.
- Chapter 19, Duct Construction, has a rewritten section on duct leakage, and new information on air dispersion systems and factory-built grease duct systems.
- Chapter 21, Fans, has added descriptions of types of fans and their applications; many upgraded figures; vibration categories, grades and limits; and a complete rewrite and update for the controls section.
- Chapter 51, Thermal Storage, has new content on unitary thermal storage systems (UTSSs), two new detailed sizing examples, several new figures, and extensive new guidance on equipment selection and operation.

The cost of the 2012 ASHRAE Handbook – *HVAC Systems and Equipment*, print edition (either I-P or SI and includes a CD of all content in both I-P and SI units) is \$199. The 2012 volume also is available in CD format for \$179. To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide) or visit at www.ashrae.org/bookstore.

ANSI Approves AMCA Fan Energy Efficiency Standard

The American National Standards Institute (ANSI) has approved an Air Movement and Control Association International (AMCA) standard that provides an energy-efficiency classification for fans. ANSI/AMCA Standard 205 defines fan efficiency grades (FEG) for fans having an impeller diameter of 125 mm (5 in.) or greater, operating with a shaft power of 750 W (1 hp) and above, and having a total efficiency calculated according to one of four existing fan test standards. Standard 205 is intended for use by legislative or regulatory bodies. It is referenced in the 2012 International Green Construction Code and is under consideration for inclusion in ASHRAE Standard 90.1.

Officers and Governors 2011—2012

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Why Be Involved in a Local Chapter?

- Learn about the latest technologies presented in the program sessions
- Attain continuing education credits
- Meet industry associates and discuss local concerns
- Network amongst designers, installers, vendors, educators, in your local area to help improve business for all
- Share experiences with others
- Enjoy a social hour
- Carry out ASHRAE's mission on a local level

To advance the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world.

ASHRAE Region I Roster 2011-12 Executive Committee

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New Small Solid Oxide Fuel Cell Reaches Record Efficiency

Individual homes and entire neighborhoods could be powered with a new, small-scale solid oxide fuel cell system that achieves up to 57 percent efficiency, significantly higher than the 30 to 50 percent efficiencies previously reported for other solid oxide fuel cell systems of its size, according to a study published in the *Journal of Power Sources*.

The system, developed at the Department of Energy’s Pacific Northwest National Laboratory, uses methane, the primary component of natural gas, as its fuel. The entire system was streamlined to make it more efficient and scalable by using PNNL-developed microchannel technology in combination with processes called external steam reforming and fuel recycling. PNNL’s system includes fuel cell stacks developed earlier with the support of DOE’s Solid State Energy Conversion Alliance.

“Solid oxide fuels cells are a promising technology for providing clean, efficient energy. But, until now, most people have focused on larger systems that produce 1 megawatt of power or more and can replace traditional power plants,” said Vincent Sprenkle, a co-author of the paper and chief engineer of PNNL’s solid oxide fuel cell development program. “However, this research shows that smaller solid oxide fuel cells that generate between 1 and 100 kilowatts of power are a viable option for highly efficient, localized power generation.”

Sprenkle and his co-authors had community-sized power generation in mind when they started working on their solid oxide fuel cell, also known as a SOFC. The pilot system they built generates about 2 kW of electricity, or how much power a typical American home consumes. The PNNL team designed its system so it can be scaled up to produce between 100 and 250 kW, which could provide power for about 50 to 100 American homes.

Join ASHRAE at its 2012 Annual Conference June 23–27, 2012/San Antonio, Texas



Special Rates for First-time Attendees



Join ASHRAE in San Antonio! Take advantage of the opportunity to discuss and examine the latest topics in the building industry, such as high performing buildings and integrated design, through the technical program; participate in technical tours; attend ASHRAE Learning Institute courses; and earn professional credits.

Technical Program – From integrated energy systems to indoor environmental applications, the Technical Program features seven tracks addressing topics and principles important in the HVAC&R industry today. The technical program also features a new mini-conference format on Integrated Building Controls. Earn PDHs, AIA LUs and LEED AP credits.

Virtual Conference – If you can’t make it to San Antonio, take advantage of the knowledge shared in the technical program with the on-demand Virtual Conference recordings of all the presentations.

ASHRAE Learning Institute – ASHRAE Learning Institute provides high-quality courses presented by industry-recognized subject matter experts. Select from two all-day seminars and six half-day courses to stay current on HVAC&R trends.

First time attendee registration fee—
 a special rate of \$320 if you register by June 1;
 \$480 during onsite registration that begins June 11.

Notice to business card advertisers:

We are currently accepting business card advertisements for this year's newsletters. The cost of a business card ad is \$125.00. The newsletter is published monthly, September through June (ten issues). That means for \$125.00 (\$12.50 an issue), your business card ad will circulate to approximately 300 recipients a month or an advertising cost of approximately 4 cents/recipient.

If you are interested in placing an ad, please forward a business card and check (payable to ASHRAE Bi-State) to:

ASHRAE Bi-State Chapter
 DL Flow Tech
 2421 Route 52
 Hopewell Junction, NY 12533




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 EXECUTIVE VICE PRESIDENT

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 e mail: larrysturgis@gmail.com

Westchester, Putnam, Rockland, Orange
 Ulster, Sullivan, Dutchess,
 Fairfield & Litchfield, Ct.

Employment Opportunities

Employment ads may be submitted for inclusion in **The Exchanger** as follows:

1. \$100.000 from companies placing ad for one (1) month.
2. \$150.00 from companies placing ad for two (2) months.
3. No charge for members looking for employment.



ASHRAE, founded in 1894, is a building technology society with more than 50,000 members worldwide. The Society and its members focus on building systems, energy efficiency, indoor air quality and sustainability within the industry. Through research, standards writing, publishing and continuing education, ASHRAE shapes tomorrow’s built environment today.

ASHRAE will be the global leader, the foremost source of technical and educational information, and the primary provider of opportunity for professional growth in the arts and sciences of heating, ventilating, air conditioning and refrigerating.

Upcoming Meetings

Month	Date	Promotion	Main Presentation	Tech Session
June	6/20/2012	Student Scholarships	Golf Outing	

California Passes Tougher Energy Code for New Construction

The California Energy Commission has approved what it called nation-leading efficiency standards for new homes and commercial buildings. Approved by a 4-0 vote, the upgraded standards include improved windows, insulation, lighting, air-conditioning systems and other features to reduce energy consumption in California homes and businesses by a projected 25 percent or more, compared with previous standards approved in 2008. The amended standards are due to take effect on Jan. 1, 2014, applying to new construction of houses and buildings. The standards also will apply to major building additions and retrofits.

“These standards are the strongest in the nation ... giving us the most efficient buildings in the nation,” said Commissioner Karen Douglas. “The package that the commission approved is the greatest savings increment that the commission has ever achieved in a standards update in over 30 years.”

The CEC said energy efficiency standards it has approved have saved Californians more than \$66 billion in electricity and natural gas costs since 1978. The commission stressed that while the new standards will make houses and buildings more expensive to build, that will be over-ridden by numerous benefits. The commission said the standards will increase the cost of building a new house by \$2,290, on average, but will return more than \$6,200 in energy savings over 30 years.

“Improving the energy efficiency of buildings in which we will live and work will save Californians energy for decades,” Douglas said. “These standards will help save consumers money on their utility bills, keep them comfortable in their homes, and reduce greenhouse gas emissions through better, more-efficient buildings.” The CEC also projected that, within the first year of implementation, the standards will add up to 3,500 new building industry jobs.

The standards had a relatively smooth ride to approval. CEC commissioners attributed that to many months of meetings with builders, installers, contractors, energy experts, environmental groups, utilities and others. Over time, various parties came to a consensus on what the standards should be, and that was reflected in some of the post-approval comments.

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ASHRAE Bi-State Chapter Annual Golf Outing



Wednesday, June 20, 2012
The Links at Union Vale



Schedule:

- 11:30 am: check-in/lunch
- 1:00 pm: shotgun start
- 6:00 pm: dinner/awards

Costs:

- \$200 per player
- \$750 per foursome
- \$65 for dinner only

Return this form with payment by June 15, 2012

Note: *If payment is not received prior to the golf outing, your reservation may not be accepted.*

Name: _____ Phone: _____

Company Name: _____

Company Address: _____

Email: _____

- | | |
|--|--|
| <input type="checkbox"/> Individual for lunch/golf/dinner\$200 | <input type="checkbox"/> Tee Sponsor\$200 |
| <input type="checkbox"/> Individual for dinner only\$65 | <input type="checkbox"/> Beverage Cart Sponsor\$1000 |
| <input type="checkbox"/> Foursome for lunch/golf/dinner\$750 | <input type="checkbox"/> Lunch Sponsor\$1500 |

Please check off participation level above and make checks payable to: *ASHRAE Bi-State Chapter.*

List names of golfers below. *(If less than four, the golf committee will complete pairings.)*

1. _____ 3. _____

2. _____ 4. _____

Mail completed reservation form and check to:
ASHRAE Bi-State Golf c/o OLA Consulting Engineers, 50 Broadway, Hawthorne, NY 10532



ASHRAE Bi-State Chapter Annual Golf Outing



Directions to The Links at Union Vale

153 North Parlیمان Road, Union Vale, NY 12540 (845)223-1002

www.thelinksatunionvale.com



From New York City and South:

- Take the Taconic State Parkway north to Route 82 North.
- Travel 4-1/2 miles and make a right onto County Route 89
- Take the first right onto North Parlیمان Road (1 mile).
- Golf Course is 1/2 mile on right.

From East or West:

- Take Interstate 84 (east or west) to the Taconic State Parkway north (6-3/4 miles) to Route 82 North.
- Travel 4-1/2 miles and make a right onto County Route 89.
- Take the first right onto North Parlیمان Road (1 mile).
- Golf course is 1/2 mile on right.

From the North:

- Take the Taconic State Parkway south to Route 55 east towards Pawling.
- Take a left at the first light (Route 82 north).
- Make a right onto County Route 89
- Take the first right onto North Parlیمان Road (1 mile).
- Golf Course is 1/2 mile on right.

ACCOMODATIONS

Boston Marriott Copley Place

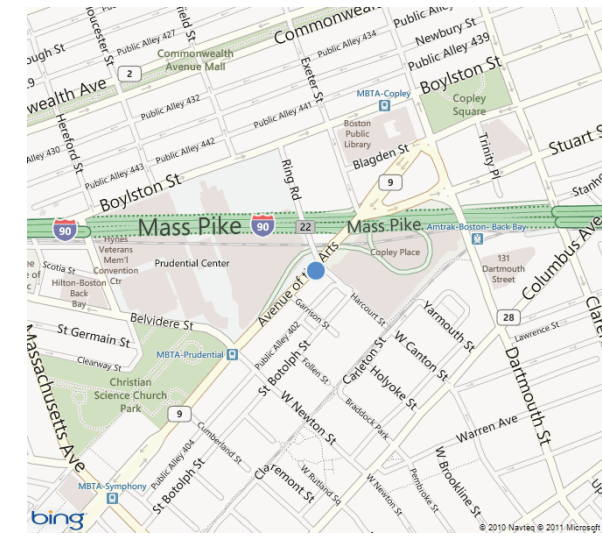
110 Huntington Ave
Boston, Massachusetts 02116
Phone: (617) 236.5800
Fax: (617) 236.5885

For reservations, call the hotel at the number above by July 27th and specify ASHRAE to receive the special conference rate of \$189/ night plus tax.

Attendees can also make reservations online at the link below. If you are planning on staying with the Boston Chapter to help us celebrate at our 100th Anniversary Gala, the same low rate will apply for your Saturday night stay.

<http://cwp.marriott.com/bosco/ashraeboston>

* Credit cards are required when booking to guarantee the room. The credit card will not be charged when making the reservation. Credit card will be charged if the registration is not cancelled and guests do not show up at the hotel for the dates of the reservation.



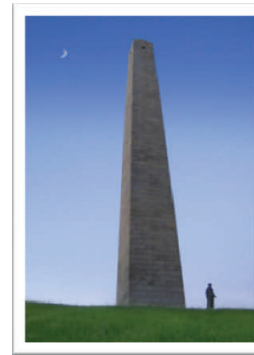
The hotel is easily accessible by car, train, bus or plane

Area Airport
Boston Logan International (3.2 Miles away)

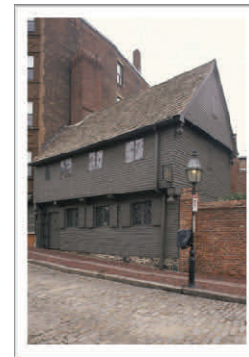
Train
Back Bay Station (.1 Miles away)
North Station (2 Miles away)

Subway
Back Bay Station (.1 Miles away)

Parking
Onsite \$35/ Day
Valet \$46/ Day (Valet includes in & out privileges, self parking does not)



Boston a city steeped in natural history with many colleges, museums, theatres, attractions, shopping and great sporting venues.



Chapter Regional Conference
August 23-25
Boston



ASHRAE Boston Chapter
Celebrating 100 Years
1912-2012



www.ashraeboston.org



**Chapter Regional Conference
August 23-25**

EVENT SCHEDULE

Day	Start Time	End Time	Event	Attendees
THURSDAY	12:00pm	7:00pm	Registration	All Attendees
	12:00pm	2:00am	Hospitality Suite	Registered Attendees
	1:00pm	3:15pm	Technical Session - Intergrated Building Design	Registered Attendees
	3:30pm	5:30pm	Business Meeting 1	Delegates & Alternates & All
	6:00pm	7:00pm	Welcome Reception	Registered Attendees
	7:00pm	11:00pm	Welcome Dinner	Registered Attendees
FRIDAY	7:00am	7:00pm	Registration	All Attendees
	7:00am	2:00am	Hospitality Suite	Registered Attendees
	7:00am	9:00am	Breakfast	Registered Attendees
	8:00am	10:00am	Caucus	Delegates & Alternates ONLY
	8:30am*	10:00am	Private Duck Tour	Registered Attendees w/ RSVP
	9:30am*	11:00am	Private Duck Tour	Registered Attendees w/ RSVP
	10:00am	11:45am	Chapter Operations Workshop	Chapter Officers
	12:00pm	1:30pm	Lunch w/ speaker	Registered Attendees
	2:00pm	3:30pm	Executive Session	Delegates & Alternates ONLY
	2:30pm	5:30pm	Technical Tour of SMACNA Training Facility	Registered Attendees w/ RSVP
3:30pm	5:45pm	Business Meeting 2	Delegates & Alternates & All	
7:30pm	10:30pm	Presidential Dinner	Registered Attendees	
SATURDAY	7:00am	10:00am	Registration	All Attendees
	7:00am	2:00am	Hospitality Suite	Registered Attendees
	7:00am	9:00am	Breakfast	Registered Attendees
	8:00am	9:45am	Business Meeting 3	Delegates & Alternates & All
	8:30am	11:30am	Membership Promotion Workshop	Membership Chairs
	8:30am	11:30am	CTTC Workshop	CTTC Chairs
	8:30am	9:30am	RECC Workshop	RECC Chairs
	8:30am	10:30am	Student Activities Workshop	Student Activities Chair
	10:00am	11:00am	Research Promotion Workshop	Research Chair
	10:00am	11:30am	Historian Workshop	Historians
	10:30am	11:30am	YEA Brainstorming Session	YEA Members
	12:00pm	2:00pm	Awards Luncheon	Registered Attendees
	2:30pm	3:30pm	CRC Debrief	CRC Host Committee & Guests
	6:30pm	7:30pm	Boston 100th Gala Reception	Registered Attendees w/ RSVP
7:30pm	11:00pm	Boston 100th Gala Dinner	Registered Attendees w/ RSVP	

Note: * All duck tour are limited to the first 36 people to RSVP, also Duck Tours attendees need to arrive a half hour early for a safety briefing prior to boarding.

Hospitality Suite will have free Wi-Fi available comfortable seating areas, refreshments and X-Box gaming systems. Families are welcome to bring their own games but should not be left in the room unattended.

Thursday Technical Session



Charles E. Gullidge III, P.E., HBDP, LEED AP, CSI, MAI

Charles is the past Chair of CTTC and past Chair of CTTC 7.01: Integrated Building Design, ASHRAE Liaison to the Construction Specifications Institute (CSI), Member of the Handbook Committee, Chair of TRG4, member of the Building Information Modeling and Interoperability Committee, and a Distinguished Lecturer on the topics of Master Format 2004 & Integrated Building Design. Charles will be join us to share his lecture topic of: Integrated Building Design. The content covers: What is IBD and how do we make it work, design team structures, project delivery techniques, hidden barriers and discipline cross-links and coordination.

Friday Technical Tour



Joseph W. Joyce

Apprenticeship Training Center.

SMACNA will showcase their training curriculum to the members of ASHRAE. There will b demonstrations on the Welding Laboratory, the new Testing and Balancing Laboratory, CAD operations, as well as ongoing videos/DVD's demonstrating our advanced standardized training techniques. They will also review their industry resources through SMACNA, SMWIA, ITI and other affiliates.

Friday Activities



8:30am Private Duck Tour

&

9:30am Private Duck Tour

Saturday 100th Anniversary Gala

Come join us for our 100th Anniversary Gala Event to be held on Saturday Aug. 25th right after the CRC and stay the night (\$189 rate).

Sunday Red Sox Game

Seats available for the afternoon game vs the Royals, for \$28 each must RSVP by June 1st.

2012 Region 1 CRC Boston - Registration Form (Please complete only one form for each member/ family attending)			
DEADLINE: July 13, 2012 - to avoid late Price			
Registration Options	Qty.	Price	Qty. Late Price
Full Member Registration w/ Gala Ticket *		\$395	\$475
Full Companions, Guest & Adult Children 18+ years old w/ Gala Ticket *		\$270	\$350
Full Member Registration w/o Gala Ticket *		\$315	\$395
Full Companions, Guests & Adult Children 18+ years old w/o Gala Ticket *		\$190	\$270
Friday & Saturday Member Registration *		\$200	\$250
Friday & Saturday Companions, Guests & Adult Children 18+ years old *		\$140	\$190
Children Full Registration 12-17 years old *		\$85	\$125
Children Full Registration 6-12 years old **		\$50	\$90
Children Full Registration 6 years old and younger **		\$0	\$0
A La Carte Options			
Saturday Only - Member or Companion *		\$100	\$130
100th Anniversary Gala Event Ticket - Member, Companion or Child *		\$100	
Thursday Technical Session (Intergrated Building Design w/ PDH)		\$0	
8:30am Private Duck Tour (first come first served - space limited)		\$0	
9:30am Private Duck Tour (first come first served - space limited)		\$0	
Friday Technical Tour (max. 54 attendees)		\$0	
Sunday Red Sox Game (vs Royals) - RSVP by June 1, 2012		\$28	