

THE HOT AIR DIFFUSER

Chapter Newsletter

March-April 2019



IDAHO ASHRAE CHAPTER OFFICERS

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May CHAPTER MEETING

Presentation: Water Treatment with the Future in Mind

Maintaining efficiency and extending the life of equipment are two goals of water treatment. In order to realize these goals, best practices need to be put in place. Due to the capital and operating costs of many systems, it is wise to develop a water treatment program from the beginning of the project. This talk will discuss some industry best practices and design considerations to achieve these goals.



Speaker: Justin Ranger, CWT— CH2O

Justin is an Account Manager for CH2O, Inc. and is a Certified Water Technologist through the Association of Water Technologies – the water treatment industry's largest trade organization. Ever curious, he pursued multiple degree paths (though he realized he needed to pick just one, if he was ever going to graduate) in math, chemistry, engineering, and philosophy while earning his bachelor's degree from Boise State University. After graduating, he entered the water treatment industry where he was able to use his background in science and his critical thinking skills to solve problems. After a decade of treating commercial and industrial water systems in Southern Idaho, he has become a valuable asset to customers' operations. Justin and his wife Tanya bought a fixer-upper in North West Boise which has become a home that they are raising their son and daughter in. He enjoys spending time outdoors with his family and feeding the curiosity of his two children.

WHEN: May 8 2019 | 11:45am to 1:00pm MST

WHERE: Idaho Power | 1221 W. Idaho St. | Boise, ID 83702

Please Register online at:
www.idahoashrae.com

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

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PRESIDENT'S MESSAGE



Daniel C. Russell, PE, HFDP

Hello and happy spring to you fellow ASHRAE Idaho members! Oh the sweet time of year when the risk of frosty mornings fades away in favor of pleasantly cool mornings that transition to blissful afternoons registering in the mid-70s. I trust you all have had a great entry to Spring time (aside from those having suffered through messy transitions of your buildings into cooling mode where discovery has been made of chilled water and cooling tower systems that have not wintered well).

I want to extend a great thank you to all who attended the April Technical Conference, which by all collective feedback I have received was our best Conference ever. Many people have thanked me personally for putting on such a great conference, and I do my best to refer them to the true heroes, but in case you are reading this and are unaware of who those people are I want to make sure it is made clear here and now to whom the true praise belongs.

Chris Pollow (Idaho Power, RP Chair) - Chris exceeded all expectations in his role as RP Chair and as Chair of the Technical Conference, putting in countless hours to arrange amazing coordination with the facility team, coordinate all speakers (including the extra speaker slots I tasked him with for doing our first ever conference with 3 tracks!) and leading a team of delegates to carry out his vision. By the way, Chris has also been a key partner in securing our monthly meeting space at Idaho Power and helping us work through the changing security and A/V protocols for that facility.

Wes Stanfill (ATS, President-Elect) - Wes has been a great support to Chris, beginning all the way into last spring/summer when he personally did the vetting of venues to secure our new conference space at the Boise Centre and carrying through to provide support through to the conference's completion.

Tom Simenc (Cascade Energy, RP Chair Elect) - Tom provided key support to Chris later in the game, which served as a great warm-up for his role as RP Chair next year. Tom brings great energy to our chapter and we are excited to see how he takes the Tech Conference to even new heights next year.

Friends, these are just a few examples of how our chapter is fueled by the generosity of our great members and member employers. ASHRAE and our chapter runs on volunteerism we all continue to benefit greatly because of it. If you have not had the privilege of volunteering, please reach out to Wes Stanfill to find out how you can help serve the chapter during the 2019-2020 chapter year.

Dan



Membership News

March-April 2019

New Idaho chapter members since 3/1/19

- Jonathan Grove (Member)
- Sean Rosin (Associate Member)
- Spencer Seewald (Associate Member)
- Casey Crown (Associate Member)
- Bradley Grutzius (Student)
- Aidan Cormier (Student)
- Mei-lin Fong (Student)
- Nicolette Guerin (Student)
- Anthony Nguyen (Student)
- David Pinkerton (Student)

ASHRAE Membership Anniversarie

5 year

- Steve Hasse
- Andrew Beall

10 Year

- John Gardner

15 Year

- Xenon Long

2018-2019 Honor Roll Donors

- ♦ Russel Pratt
- ♦ Randy Reed
- ♦ Brian Emtman
- ♦ Dan Russell
- ♦ Johnson Controls - Idaho
- ♦ Wesley Stanfill
- ♦ Andrew Beall
- ♦ Jeff Robenstein
- ♦ Chris Pollow
- ♦ Jerry Burstedt
- ♦ Dennis Fox
- ♦ Idaho Power Company



HISTORY LESSONS

March 2019

Five Years Ago

The chapter president was Dennis Fox. The meeting was held on March 12, 2013 at the Idaho Power Building. The presenter was John Gunnerson who was the Geothermal Program Coordinator for the City of Boise. John presented on the Boise municipal geothermal system.

Ten Years Ago

The chapter president was Jeff Fulcher. The meeting was held on March 13, 2009. The program and location of the meeting are unknown.

Fifteen Years Ago

The chapter president was Matthew May. The meeting was held on March 12, 2004, at the Red Lion Riverside. James Schroeder, Micron, gave a presentation on practical clean room design from a Micron perspective including filtration, construction, temperature and humidity control, and sound and vibration control.

Twenty Years Ago

The chapter president was Brent Robertson. The meeting was held on March 12, 1999, at the Doubletree Riverside. This was a combined meeting with AIA. The program was on combining efforts to increase awareness of HVAC on new building construction and increasing quality of buildings produced.

Twenty Five Years Ago

The chapter president was Roger Albers. The meeting was held on March 11, 1994, at Edwards Restaurant. Darrell Fugate, Director of Engineering at St. Alphonsus, gave a presentation on advantages and disadvantages of a 2-stage evaporative cooling system that has been in operation at the hospital for about a year.



HISTORY LESSONS

April 2019

Five Years Ago

The chapter president was Dennis Fox. The ASHRAE Technical Conference was held on April 18, 2013 at the Oxford Suites. The ASHRAE distinguished lecturer was Ronald Jarnagin, Staff Scientist at the Pacific Northwest National Laboratory.

Ten Years Ago

The chapter president was Jeff Fulcher. The ASHRAE Technical Conference was held on April 10, 2009 at the Oxford Suites.

Fifteen Years Ago

The chapter president was Matthew May. The meeting was held on April 9, 2004, at the Red Lion Riverside. Boise State University senior engineering students Jennifer Cole and Kate Roeske gave a presentation titled “Biological Applications of Atomic Force Microscopy”. The presentation included a history of AFM, the theory behind AFM, and the advantages of using AFM for biological research.

Twenty Years Ago

The chapter president was Brent Robertson. The meeting was held on April 9, 1999, at the Doubletree Riverside. A one hour technical session was given by Gil Avery, a mechanical engineering consultant from Memphis, TN, on selecting control valves and control piping for heating and cooling coils. The lunch presentation was also by Mr. Avery on control considerations for the 21st century.

Twenty Five Years Ago

The chapter president was Roger Albers. The meeting was held on April 8, 1994, at Edwards Restaurant. Joseph Prin, Beacon Light Industries, allegedly sang, tap danced, and told dirty jokes in conjunction with a discussion of the “Bulb Boss”, an energy saving lighting control.

Thirty Years Ago

The chapter president was Pat House. The meeting was held on April 14, 1989, at the Kings Table Restaurant. Greg Miner, Residuals Management, Inc., gave a presentation on hazardous materials including asbestos.



Pieces of ASHRAE and HVAC&R History

ASHRAE and Willis H. Carrier

Ronald Howell, Fellow

The American Society of Heating and Ventilating Engineers (ASHVE) was formed in New York City in 1894 to conduct research, develop standards, hold technical meetings, and publish technical articles in journals and handbooks. Its scope was limited to the fields of heating and ventilating for commercial and industrial applications, with secondary emphasis on residential heating. Years later the Society's name was changed to the American Society of Heating and Air-Conditioning Engineers (ASHAE) to recognize the increasing importance of air conditioning.

In 1904, the American Society of Refrigerating Engineers (ASRE) was organized and headquartered at the American Society of Mechanical Engineers (ASME). The new society had had 70 charter members and was the only engineering group in the world that confined its activities to refrigeration, which at that time consisted mainly of ammonia systems.

In 1905, ASME established 288,000 BTU in 24 hours as the commercial ton of refrigeration (within the United States). In the same year, the New York Stock Exchange was cooled by refrigeration. In 1906, Stuart W. Cramer coined the term "air conditioning."

ASHAE and ASRE merged in 1959, creating the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

ASHRAE celebrated its Centennial Year during society year 1994-1995. In commemoration of the centennial, two books on the history of ASHRAE and the HVAC industry were published. PROCLAIMING THE TRUTH and HEAT AND COLD: MASTERING THE GREAT INDOORS.

Willis H. Carrier (1876-1950) has often been referred to as the "Father of Air Conditioning." His analytical and practical accomplishments contributed greatly to the development of the refrigeration industry.

Carrier graduated from Cornell University in 1901 and was employed by the Buffalo Forge Company. He realized that satisfactory refrigeration could not be installed due to the inaccurate data that were available. By 1902, he developed formulas to optimize forced draft-boiler fans, conducted tests and developed multi-rating performance tables on indirect pipe coil heaters, and set up the first research laboratory in the heating and ventilating industry.

In 1902, Carrier was asked to solve the problem faced by the lithographic industry of poor color register caused by weather changes. Carrier's solution was to design, test, and install at the Sacket-Wilhelms Lithographing Company of Brooklyn a scientifically engineered, year-round air-conditioning system that provided heating, cooling, humidifying, and dehumidifying.

In 1904, Carrier had adapted atomizing nozzles and developed eliminators for air washers to control dew-point temperature by heating or cooling a system's recirculated water.

At the 1911 ASME meeting Carrier presented his paper, "Rational Psychrometric Formulae" which related dry-bulb, wet-bulb, and dew point temperatures of air, as well as its sensible, latent, and total heat load, and set forth the theory of adiabatic saturation.

By 1922, Carrier's centrifugal refrigeration machine, together with the development of non-hazardous, low-pressure refrigerants made water chilling for large and medium-sized commercial and industrial applications both economical and practical.



ASHRAE and IIR Establish New Definitions of Five Refrigeration Keywords

ATLANTA (April 11, 2019) – ASHRAE and the International Institute of Refrigeration (IIR) announced the establishment of new definitions for five refrigeration keywords. The keywords are cooling, refrigeration, chilling, freezing and cold chain.

The definitions are the result of more than a year of discussions and were established to clarify the meaning of basic terminology used in the HVAC&R industry.

"The new definitions will help those within our industry, as well as the general public, gain a clearer understanding of important refrigeration keywords that are often misused or too broadly defined," said 2018-2019 ASHRAE President Sheila J. Hayter, P.E. "We appreciate the contributions of IIR and anticipate that the adoption of these definitions will be positive." To avoid confusion, the official definitions are:

Cooling

- (1) Removal of heat, usually resulting in a lower temperature and/or phase change
- (2) Lowering temperature

Refrigeration

- (1) Cooling of a space, substance or system to lower and/or maintain its temperature below the ambient one (removed heat is rejected at a higher temperature)
- (2) Artificial cooling

Chilling

Cooling of a substance without freezing it

Freezing

Solidification phase change of a liquid or the liquid content of a substance, usually due to cooling

Cold Chain

Series of actions and equipment applied to maintain a product within a specified low-temperature range from harvest/production to consumption

"It was important that the differences that might exist in these definitions between the IIR and ASHRAE be erased for more consistency. It now seems important for us to reach even greater harmonization on an international level to establish universal definitions," said Jean-Luc Dupont, head of the Department of Scientific and Technical Information of the IIR.



IIR has called on all national and regional organizations and associations to adopt and disseminate the new definitions. The definitions will be included in ASHRAE Terminology, its free comprehensive online glossary of more than 3,700 terms and definitions related to the built environment, with a focus on heating, ventilating, air conditioning, and refrigeration (HVAC&R), as well as building envelope, electrical, lighting, water and energy use, and measurement terms.

Congress Continues to Focus on Climate Policy

On March 26, the Senate voted on the Green New Deal resolution, which failed 0 to 57 with 43 Democratic Senators voting "present" on the legislation. Senators Joe Manchin (D-WV), Kyrsten Sinema (D-AZ), Doug Jones (D-AL), and Angus King (I-ME) joined all the Republicans in voting against the resolution.

The same day, Senate Republicans blocked an attempt from Senate Minority Leader Charles Schumer (D-NY) to officially form a Special Committee on the Climate Crisis that mirrors the one created in the House. However, Schumer decided to move forward in creating this committee, which will be comprised of ten Democratic Senators. Senator Brian Schatz (D-HI) will chair the committee.

A group of House Republicans are working to gather signatures for a discharge petition in the hopes of forcing Speaker Nancy Pelosi (D-CA) to bring the Green New Deal to the floor for a vote. The petition is unlikely to get the 218 signatures needed.

On April 3, Rep. Matt Gaetz (R-FL) introduced the "**Green Real Deal**" resolution to address climate change. The resolution would identify climate change as a national security risk and call on the United States to "support green energy innovation, modernize the electric grid and increase generation from hydropower and nuclear energy resources." The resolution does not set timelines for reducing carbon emissions.

On April 4, the House Energy and Commerce Committee advanced **H.R. 9**, which would commit the U.S. to remaining in the Paris Climate Agreement with a 29 to 19 party-line vote. The bill headed to the Foreign Affairs Committee to be marked up on April 9.

On April 4, over 100 Democrats **sent a letter** to the Chairs of the Budget and Appropriations committees saying appropriations legislation needs to assist in combatting climate change.

Democrat's Unite for Clean Energy Tax Extenders

On April 4, over 100 Democrats **sent a letter** to Ways and Means Chairman Richard Neal (D-MA) in support of clean energy tax credits such as those "encouraging energy efficiency, including performance-based tax incentives for new and existing homes and commercial buildings (which account for 40 percent of emissions), such as 25C or 179D." 179D is a tax extender that cites ASHRAE 90.1

ASHRAE Sends Letter Regarding Funding for NIST's Physical Infrastructure and Resilience Programs

ASHRAE sent a letter with 15 other organizations to the Appropriations Committee in the **House** and **Senate** expressing concerns with the President's FY2020 budget request for NIST. The President's proposal would reduce funding for the Physical Infrastructure and Resilience program, which would eliminate important programs that help the buildings industry, their occupants, and owners. This would include eliminating "work on developing and deploying advances in science and technology to markedly improve building energy efficiency and occupant safety in the U.S." including the "elimination of work at the net-zero energy, high-performance building facility, as well as embedded intelligence in building control and operation."

ASHRAE Idaho Chapter

GOLF TOURNAMENT

- 4 PERSON SCRAMBLE TO BENEFIT THE IDAHO CHAPTER

WHERE: EAGLE HILLS GOLF COURSE

WHEN: 1:00 PM, FRIDAY, JUNE 7th, 2019 SHOTGUN START

FOOD: BARBECUED HAMBURGERS, CHIPS, AND SALAD WILL BE SERVED FOR DINNER FOLLOWING THE TOURNAMENT.

PRICES: EARLY BIRD COSTS: \$100 PER PERSON, \$400 PER TEAM
AFTER May 25th COSTS: \$110 PER PERSON, \$440 PER TEAM
- SINGLE PLAYERS WELCOME!
-\$15.00 FOR ADDITIONAL DINNER GUESTS

INCLUDES: 18 HOLES OF GOLF, CART, GOLF BALLS ON THE RANGE, FOOD, DRINKS, DOOR PRIZES, AND A \$10,000 HOLE IN ONE PRIZE

SPONSORS: TEE OR GREEN COMPANY LOGO SIGN-\$150
**INCLUDES ONE TEE OR GREEN SPONSOR SIGN WITH COMPANY LOGO*

TEE AND GREEN LOGO SIGNS-\$250
**INCLUDES ONE TEE AND ONE GREEN SPONSOR SIGN WITH COMPANY LOGO*

HOLE-IN-ONE PRIZES-\$500
**INCLUDES FOUR PRIZE SIGNS WITH COMPANY LOGO. INSURANCE FOR PRIZES IS INCLUDED IN THIS COST.*

INTERACTIVE DISPLAY BOOTH-\$400
**INCLUDES TEE OR GREEN SPONSORS SIGN WITH COMPANY LOGO, INTERACTIVE DISPLAY ON SELECTED TEE OR GREEN(FIRST AVAILABLE), AND 2 DINNERS*

TITLE SPONSORSHIP FOR DINNER PLATINUM LEVEL -\$1,000
**INCLUDES 6'x3' BANNER AT CLUBHOUSE, BRANDING ON ALL SCORECARD AND INSTRUCTION SHEETS AND 5 MINUTES FOR ADDRESSING TO THE GROUP AT DINNER*

TITLE SPONSORSHIP FOR DINNER SILVER LEVEL -\$500
**INCLUDES 4'x2' BANNER AT CLUBHOUSE, BRANDING ON ALL SCORECARD AND INSTRUCTION SHEETS*

DEADLINE FOR REGISTRATION AND SPONSORS
IS MAY 31st, 2019

TO REGISTER, PLEASE GO ONLINE TO www.idahoashrae.com AND PROCEED TO THE EVENTS CALENDAR WHERE YOU CAN FIND ALL BILLING INFORMATION. HANDICAPS FOR ALL PLAYERS WILL BE NEEDED TO COMPLETE THE FORM WITH A MAXIMUM OF 30. IF YOU NEED FURTHER ASSISTANCE OR ARE A SINGLE PLAYER WANTING TO BE PLACED ON A TEAM, PLEASE COORDINATE WITH SPENCER SHEPARD- EMAIL: spencers@rmmechanical.net, PH#: 208 362-7810



REGISTRATION FORM

TEAM COORDINATOR

COMPANY:

NAME:

PHONE:

EMAIL:

INDICATE LEVEL OF SPONSORSHIP BELOW:

- | | |
|---|---------|
| ☐ NONE | \$0 |
| ☐ TEE | \$150 |
| ☐ GREEN | \$150 |
| ☐ TEE&GREEN | \$250 |
| ☐ INTERACTIVE DISPLAY BOOTH | \$400 |
| ☐ SILVER | \$500 |
| ☐ PLATINUM | \$1,000 |

***-See attached flyer for further information on sponsorships**

If available, please include the following information:

PLAYERS NAME	HANDICAP(30 max)
---------------------	-------------------------

- | | |
|----------|-------|
| 1. _____ | _____ |
| 2. _____ | _____ |
| 3. _____ | _____ |
| 4. _____ | _____ |

Player names and handicaps needed by Wednesday, June 5th, 2019.

Please signup and pay online at idahoashrae.com or return completed form along with payment to Spencer Shepard @5998 W. Gowen Road, Boise, ID 83709. PH# 208 362-7810. Email spencer@rmmechanical.net

EAGLE HILLS GOLF COURSE, near Eagle, ID

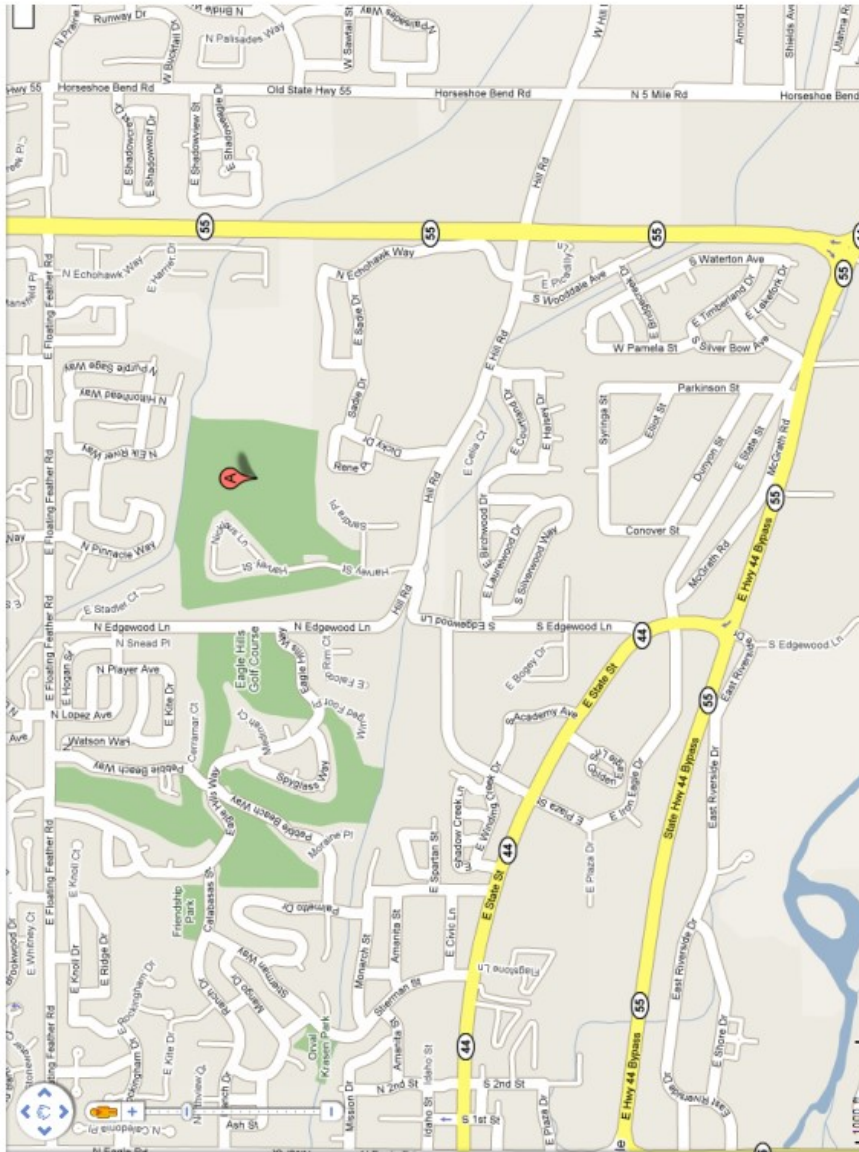
Categories: [Golf Courses](#), [Grounds](#)

 **Eagle Hills Golf Course** - [more info](#)

605 N Edgewood Ln, Eagle, ID -
(208) 939-0402
[1 review](#) - [Write a review](#)



See all 156 results for **EAGLE HILLS GOLF COURSE**.





05.09.2019

ASHRAE IDAHO YEA HAPPY HOUR!

Attention ASHRAE Idaho Young Engineers!

Lets celebrate the arrival of spring and (almost) the end of the work week with happy hour drinks and (possibly) trivia!

5:00 PM – Lost Grove Brewing – 1026 S La Pointe St, Boise ID

Questions? – ericringold@gmail.com



ADVERTISEMENTS

Online Advertising!!

Get your business card posted on

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*renewals are due now

Annual Business Card Ad on Website: **\$50**



Professional Development Hours

Professional Development Hours are now available at
ASHRAE monthly meetings!



ATTENTION: ASHRAE MEMBERS		
The Chapter is now accepting advertisements		
in the monthly newsletter.		
<u>Sponsorship Rates are as follows:</u>		
	Per Issue	Annual (⁶12 issues)
Business Card	\$10.00	\$50.00
Quarter Page	\$25.00	\$250.00 \$150
Half Page	\$40.00	\$325.00 \$240
Full Page	\$60.00	\$450.00 \$360

Member Questionnaire

[Click Here!](#)

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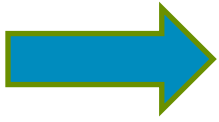
EXAMPLE:

Engineering Company-Mechanical Engineer I Position now open

Visit: www.engineeringcompany.com/.careers for more information

- For quarter, half, or full page job advertisements see above for pricing

Issues registering for monthly meetings?



Please contact Brian Emtman
brianemtman@ctagroup.com

Interested in becoming more involved with your local ASHRAE Chapter? Please contact Dan Russell @
dan@norbryhn.com
for more information.



